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ABSTRACT

Recognizing the importance of a curriculum that facilitates the acquisition of desirable, affective work competencies (work attitudes, values, and habits) as well as specific job skills, a study was conducted to review and synthesize what is known about the social and psychological aspects of work and to identify specific affective work competencies that are desirable and common for vocational education programs. The literature review focused on the historical and theoretical perspectives which relate to understanding the behavior of individuals and groups; it also examined the empirical data related to affective work competencies identified by employers, educators, and experienced employees. Based on the combined investigations conducted by industry and education, a variety of affective work competencies was identified. A synthesis of forty-two affective work competencies identified by industry with the fifty-four identified by educators provided a total of sixty-three unique, identifiable affective work competencies. However, the study concluded that there is a lack of continuity between educational institutions and employing organizations; consequently, some of the affective work competencies identified by educators have been inconsistent with what industry wanted or needed. Moreover, the inability of researchers to identify and objectively measure affective competencies was found in both industry and education, indicating a need for the development of reliable, valid, and objective measuring instruments. Recommendations and guidelines for an affective work competencies inventory are provided. (EM)

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AFFECTIVE WORK COMPETENCIES
FOR VOCATIONAL EDUCATION

written by

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1978

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FOREWORD

The Educational Resources Information Center on Adult, Career, and Vocational Education (ERIC/ACVE) is one of sixteen clearinghouses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered in the ERIC data base. This paper should be of particular interest to vocational education teachers and administrators as well as program planners in both industry and education.

The profession is indebted to H. C. Kazanas for his scholarship in the preparation of this paper and to the Research Coordinating Unit of the State Department of Elementary and Secondary Education, Jefferson City, Missouri, for their support of his work. Assisting Professor Kazanas in its preparation were the following research associates: David P. Beach, Ernest L. Frazier, Jesse J. Lucas, Gregory C. Petty, and John Sapko, Jr. Recognition also is due Edwin L. Herr, The Pennsylvania State University; George I. Brown, University of California at Santa Barbara; and Frank Pratzner, The National Center for Research in Vocational Education, The Ohio State University, for their critical review of the manuscript prior to its final revision and publication. Robert D. Bhaerman, Career Education Specialist at the ERIC Clearinghouse on Adult, Career, and Vocational Education, supervised the publication's development. David Tipton, ERIC/ACVE Program Associate, assisted in the editing of the manuscript. Anne Gilmore typed the final draft.

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ABSTRACT

Recognizing the importance of a curriculum that facilitates the acquisition of desirable, affective work competencies (work attitudes, values, and habits) as well as specific job skills, a study was conducted to review and synthesize what is known about the social and psychological aspects of work and to identify specific affective work competencies that are desirable and common for vocational education programs. The literature review focused on the historical and theoretical perspectives which relate to understanding the behavior of individuals and groups; it also examined the empirical data related to affective work competencies identified by employers, educators, and experienced employees. Based on the combined investigations conducted by industry and education, a variety of affective work competencies was identified. A synthesis of forty-two affective work competencies identified by industry with the fifty-four identified by educators provided a total of sixty-three unique, identifiable affective work competencies. However, the study concluded that there is a lack of continuity between educational institutions and employing organizations; consequently, some of the affective work competencies identified by educators have been inconsistent with what industry wanted or needed. Moreover, the inability of researchers to identify and objectively measure affective competencies was found in both industry and education, indicating a need for the development of reliable, valid, and objective measuring instruments. Recommendations and guidelines for an affective work competencies inventory are provided. (BM)

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INTRODUCTION

Affective work competencies (work attitudes, values and habits) are manifested in work behaviors of individuals in the workplace. Through the years considerable effort has been directed by vocational educators to prepare students with sufficient psychomotor skills and cognitive information for job performance; however, by and large, they have treated the acquisition of affective work competencies as an incidental factor. Yet, with advancing technology, machines are completing more and more of the psychomotor activities once performed by workers. Consequently, society's occupational structure is changing from a production-oriented to a service-oriented world. In this shift, workers increasingly face the problem of earlier obsolescence of specific job skills and knowledge. They have to work in an environment where work values, habits, and attitudes become important criteria for job survival.

To prepare today's vocational education graduates for successful employment, programs should provide a curriculum that will facilitate acquisition of desirable, affective work competencies as well as specific job skills and knowledge.

This paper has been prepared as a preface to contemporary curriculum development in vocational education. Its scope is (1) to review, synthesize and report what is known about the social and psychological aspects of work, and (2) to identify and analyze specific affective work competencies that are desirable and common for most vocational education programs.

SCOPE AND LIMITATIONS

NEED FOR AFFECTIVE DOMAIN EDUCATION

Campbell (1974), a proponent of affective educational experiences, has stated:

> The message is seemingly clear enough. Our schools must begin producing students who are not only capable of inquiry and the problem solving process (cognitive), but who have also developed the emotional stability and interpersonal skills necessary for a humanized existence (affective). (pp. 13-14)

The implication is that schools are responsible not solely for the accumulation of facts but also for providing experiences that enable students to acquire the necessary affective competencies.

Sund and Bybes (1971) similarly pointed to the need for developing affective skills. They suggested that educators should do more than just sort students and work with them on the academic skills; they should in fact be concerned with developing their students totally; that is, emotionally, socially, physically, and intellectually.

Supporting the opinions of the educators in these matters are numerous studies from industry, which indicate that personal traits account for many workers not advancing in their jobs (Burns, 1973, p. 14). Wilson (1973, p. 15) suggested that most people fail or lose their jobs because of poor personal qualities or general attitudes than because of insufficient job skills or inadequate performance.

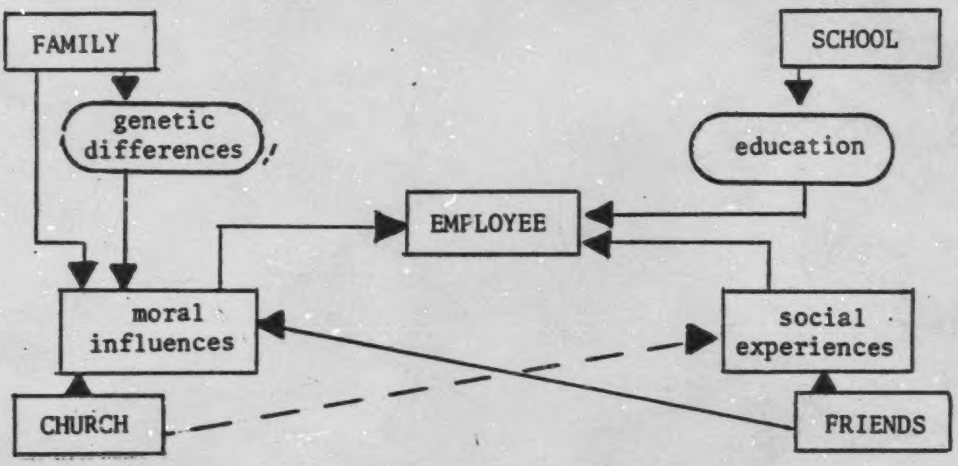
Also, the government has implicitly expressed interest in the situation of the American worker. In 1974 The Occupational Outlook Quarterly published a "Beginner's Guide to Work" describing expectations of employers regarding punctuality, attendance, responsibility and job attitude. Articles of this nature represent a major source of vital concern for people entering the labor force.

Although many types of reports and investigations have been done relating to work values, job satisfaction, and productivity, there is in fact a dearth of information on the nature and identity of desirable affective worker characteristics. As a result, the nature and acquisition of such competencies is often misunderstood--especially for vocational education.

DEFINITION AND PURPOSE

Affective Work Competencies is a relatively new concept. The term refers to those characteristics, habits, values or attitudes of a worker.

A person's affective work competencies are influenced by many variables--past failures, social experiences, physical characteristics, self-concepts, socioeconomic status, mental ability, etc. (Bingham, 1931; Strother, 1962; Kazanas, et al., 1973; Garbin, et al., 1976; Stone, 1977). By adapting Glueck's (1974) "Past Influences" model, these variables can be consolidated into the following four major environmental factors or sources of influence:



Of the sources represented above, SCHOOL obviously is the one that increasingly receives the responsibility of preparing youth for successful employment. To effectively assume this responsibility, vocational education programs must provide a curriculum that will facilitate the acquisition of skills, knowledge, and affective work competencies.

Essential, then, to the development of a comprehensive curriculum is the identification of affective work competencies that are desirable and common to occupations. Such identification is the major objective of this document. (Note: For the purpose of this docu-

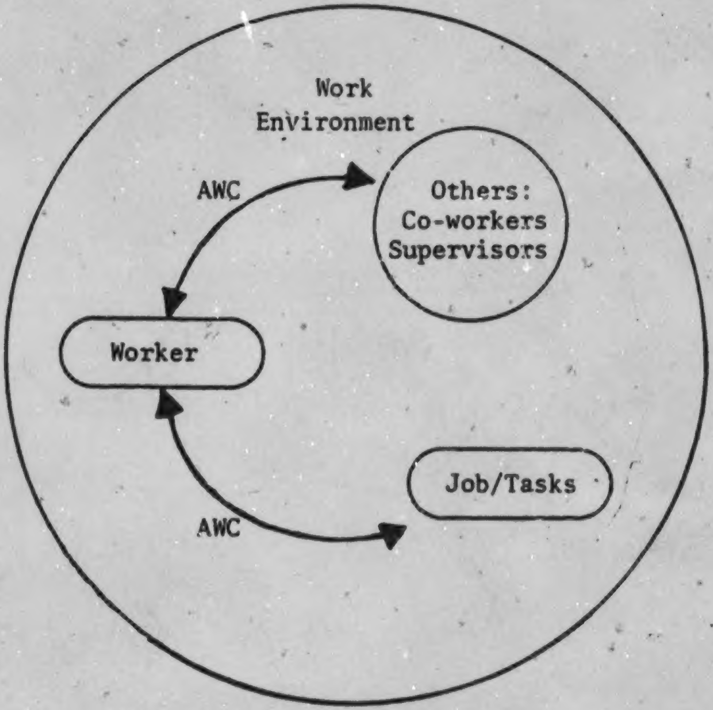
---

ment, the term applies to occupations for which vocational or pre-baccalaureate training and education are sufficient. Professions and entrepreneur positions are not included.)

PARAMETERS: FOCUS AND SCOPE

An initial review of the research has revealed that work attitudes, values, and habits can be associated with two major areas of employee job interaction: workers in relation to work or tasks *and* interpersonal relations between workers and co-workers or supervisors (Bingham, 1931; Strother, 1962; Gilmer, 1971; Ronan and Prien, 1971; Maier, 1973; Stone, 1977).

The paradigm below illustrates the concept that affective work competencies (AWC) exist in the relationship a person has with other people or with work tasks:



For this paper, emphasis was placed on identifying and analyzing affective work competencies relative to this paradigm.

Some affective work competencies are assumed to be common to or useful in many occupational clusters. Others are unique to certain clusters. In an effort to provide a comprehensive inventory, we have attempted to identify all of the affective work competencies that have been described by the major scientific, governmental, psychological, industrial, and educational research.

REVIEW OF RESEARCH

Affective work competencies are manifested in the work behaviors of individuals in the workplace. An understanding of the various theoretical bases underlying behavior in the workplace will assist in understanding affective work competencies of individuals therein. As Maier (1973) has observed, "We *understand* behavior when we know what caused it or what made the person do it. We *evaluate* behavior when we approve or disapprove of it." (p. 17) Thus, the first segment of this review focuses on theories that relate to understanding behavior of individuals and groups; the second part examines empirical data related to the evaluation of behavior at the workplace, that is,affective work competencies.

INDIVIDUAL AND GROUP BEHAVIOR: A THEORETICAL BASE

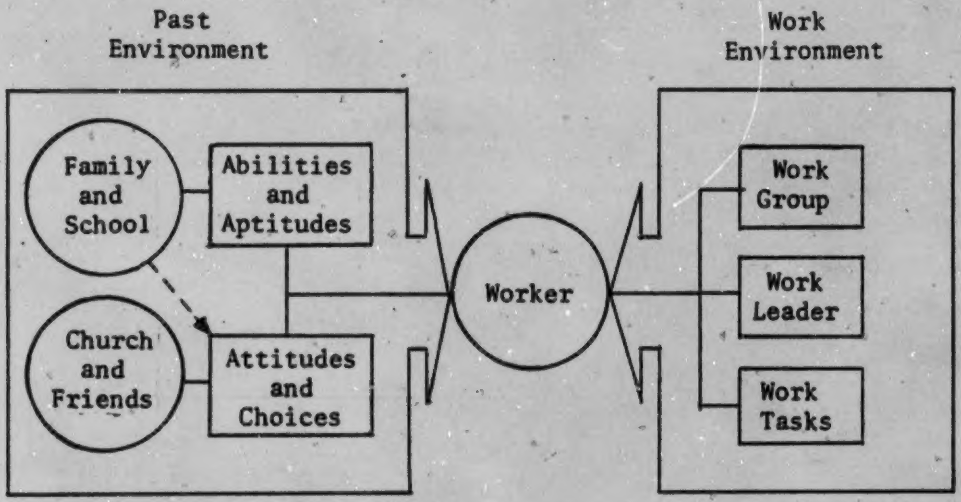
A Managerial Perspective: Work and Workers

In the world of work, management organizations do not expect workers to automatically cooperate and produce fully in order to meet managerial goals. Effective managerial action is essential in order to control and direct the processes necessary for this to occur. Thus, a major component of organizational behavior that must be understood by managers is *people*, individually and collectively. Managers must recognize that the individual brings to the job a unique set of needs and potential and, therefore, possesses specific behavior patterns that will be certainly influenced by the organization. Hampton et al. (1973) describe this relationship:

> First, behavior on the job is a function of what the person brings to the situation and what the situation brings to the person. When people come to work in organizations they do not come "empty handed," as it were. They bring

> a supply of energy or potential to perform. They bring various needs or motives which predispose them to release their energy or behave in particular ways--ways which seem to them likely to satisfy their needs.
>
> What the person brings to the situation is but one blade of the scissors. The other blade is what the situation brings to the person. It is only as the blades come together that the pattern of behavior is cut. The characteristics of the organizational or work situation provide cues which can arouse particular tendencies to behave. Circumstances can signal to the individual that particular job-oriented behaviors may lead to satisfaction of his needs. (p. 3)

This concept is illustrated below. Both environments have been simplified in this graphic presentation of the major environments that impact on the worker:



Managerial philosophy has not always been concerned about the psychological and sociological aspects of workers. However, perspectives have slowly shifted from the earlier *economic man* assumptions to the realities of human factors in the success of organizations. This shift necessarily centers attention upon affective work competencies. We believe, therefore, that a brief review of the historical development of managerial philosophy would clearly show these changing attitudes and the increasing importance of affective work competencies.

Ancient civilizations practiced management. George (1968) documented managerial practices of Sumerian priests, Egyptial pharaohs, and others who had responsibilities for managing people during these early times. Interestingly, many of the practices parallel those used by modern organizations in areas of planning, organization, control, division of labor, and leadership.

The Greek and Roman city-states developed relatively sophisticated organizations designed to facilitate the operation of their political, military, and commercial activities. According to George (1968), the Greeks were aware of the direct relationship between work and *standard motions* to gain efficient productivity. And Mooney (1939) found that "the real secret of the greatness of the Romans was their genius for organization" (p. 63). The principles he uncovered stressed the importance of efficient administration.

The feudal system, developed during the Medieval period, contrasted these centralized systems. However, as with modern decentralized systems, three problems surfaced: decision making, delegation of authority, and accountability.

The Industrial Revolution later ushered in additional managerial changes. The decentralized system gradually reverted to a centralized system brought about by mercantilism. Among the factors that contributed to industrialization were the interchangeable parts concept, steam power, and the philosophy of *laissez-faire*. During this period, management began to apply scientific principles to the workplace. Specifically, near the beginning of the twentieth century (which in management history is referred to as the *classical management era*), a group of engineers made significant contributions to the management field. At this time, theorists attempted to define the functions of a manager. Donnelly et al.(1975) described the essence of classical theory:

> Classical writers defined management in terms of the functions of a manager. Accordingly, the essential nature of management lies in the unique functions of managers. These functions should be the focus of the field. At the same time, the classical writers were interested in *prescriptive* management theory; that is, they sought to discover how managers should perform their functions. This prescriptive approach is readily seen in the area of scientific management where management's function is to discover the "one best way" to do manual tasks. This orientation toward the one best way is also found in the classicists' discussion of organi-

> zation theory. According to their analyses, there is one form of organization that is appropriate for the firm, and one of the management functions is to discover that form. (pp. 23-24)

Four persons who made landmark contributions to the management of work were Frederick W. Taylor (1911), Frank Gilbreth (1911), Henry L. Gantt (1916), and Harrington Emerson (1913). Taylor (1911) advocated the adoption of four principles of "scientific management":

- Develop a science for each element of a man's work which replaces the old rule-of-thumb method.

- Scientifically select then train, teach, and develop the workman; whereas in the past he chose his own work and trained himself as best he could.

- Heartily cooperate with the men so as to ensure all of the work being done in accordance with the principles of the science which have been developed.

- Equally divide the work and the responsibility between the management and the workmen. (pp. 36-37)

Taylor made other contributions, but the one with the greatest longevity was his development of methods implemented at the shop level.

Important work in time and motion by Gilbreth (1911) contributed greatly to work simplification. Gantt (1916) also was concerned about the relationship of work and time. (The Gantt Chart is still utilized by managers.) A synthesis of concepts produced by earlier advocates of scientific management was developed by Emerson (1913), who proposed twelve principles to implement the scientific management approach. Donnelly et al. (1975) presented five points summarizing Emerson's principles: "...use scientific, objective, and factually based analysis; define the aims of the undertaking; relate each part to the whole; provide standardized procedures and methods; and reward individuals for successful execution of the task" (p. 31).

Although these revolutionary thinkers did not have the impact on the industrial world that they sought, many scientific management concepts which they espoused are successfully being applied by modern management.

One of the most significant omissions of the scientific management philosophy was *people*. The psychological and sociological interaction between workers, groups, and the organization appears to have been neglected. The *economic man* assumption prevailed. The early managers assumed that the primary motive for workers was economic gain.

The view of the worker in classical management was, then, very simplistic. The approach of the classicists promoted three essential management steps: design the job to get the greatest efficiency, offer the proper monetary incentive, and select and train workers according to the plan developed by those who designed the job. This approach, theoretically, was to maximize production. It was, at best, an impersonal approach which attempted to fit workers to the job without regard to psychological needs.

For this reason, classical management theory began to be questioned about the middle of this century. The *economic man* assumptions were challenged by the behavioral school of management. Donnelly et al. (1975) describe this school of management as follows:

> While this school has been described in several ways, we shall entitle it the Behavioral School of Management. Its first branch may be identified as the "human relations" approach, and became popular in the early 1950's. The second branch was the "behavioral science" approach, which came into popular use in the early 1950's and today receives much emphasis in the literature on management. (p. 125)

Their description of the behavioral school of management is outlined below:

Human Relations Approach	Behavioral Science Approach
--Stimulated by Hawthorne studies (1927-1932)	--1950's to the present
--1940's and early 1950's	--Integration of behavioral science
--Emphasis on human element	--Emphasis on scientific analysis of human behavior in organizations

The Hawthorne Studies prompted a surge of interest in human relations in the workplace. Harvard researchers were invited to the Hawthorne Plant of Western Electric in order to conduct studies on the impact of the physical environment on worker performance. Changes in illumination, conditions of the job, and a group piecework incentive plan were reported less influential on productivity than meeting the needs of the whole personality. Carey (1967) and Landsberger (1958) criticized these studies. However, in spite of apparent shortcomings, these studies shifted attention to the worker and away from the over emphasis on production.

The behavioral science approach gained momentum during the 1950's. The approach emphasized the scientific method and drew heavily from psychology, sociology, and anthropology. Psychological research has contributed an important knowledge base that has been applied in the workplace. Also, sociologists have provided extensive research related to small work groups, and anthropologists have provided insight into the cultural impact on organizations. All of these disciplines have provided information necessary for management to deal effectively with people in the workplace.

Motivation of the Individual

Organizations, needless to say, are interested in motivating workers toward meeting work goals. Campbell, Dunnette, Lawler, and Weick (1970) define human motivations as follows:

> (1) The direction of his behavior or what he chooses to do when presented with a number of possible alternatives.
>
> (2) The amplitude or strength of the response (i.e., effort) once the choice is made.
>
> (3) The persistence of the behavior, or how long he sticks with it. The term "motivation" conveniently subsumes a number of other variables such as drive, need, incentive, reward, expectancy, etc. It is these variables which are important for the study of motivated behavior. (p. 340)

A more direct definition of motivation is offered by Berelson and Steiner (1964): it is "all those inner striving conditions described as wishes, desires, drives....It is an inner state that activates or moves." (p. 239)

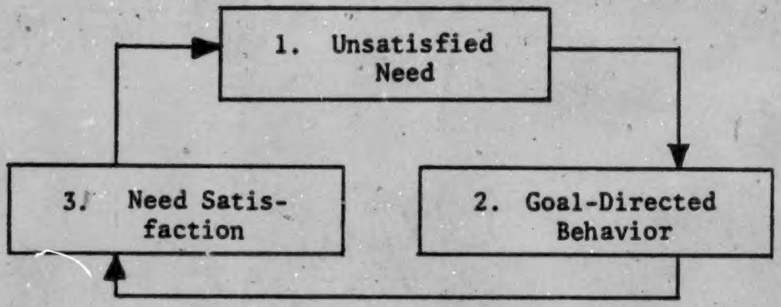
Tolman (1958) used the term intervening variable to describe motivation. Donnelly et al.(1975) suggested that an intervening variable or motivation cannot be "seen, heard, or felt" and can only be inferred from behavior. He further stated that:

> In other words we can only judge how motivated a person is by observing his behavior; we cannot measure it directly because it is unobservable. This means that we must first operationally define what motivation is, since we can only measure presumed indicators of motivation. (p. 141)

It appears, then, that motivation, needs, and goals are closely linked. Regarding their interrelationship, Donnelly et al. (1975) observed that:

> An unsatisfied need is the starting point in the process of motivation. It is a deficiency of something within the individual and provides the spark which begins the chain of events leading to behavior. An unsatisfied need causes tension (physical or psychological) within the individual, leading the individual to engage in some kind of behavior (seek a means) to satisfy the need, and thereby reduce the tension. Note that this activity is directed toward a goal; arrival at the goal satisfies the need, and the process of motivation is complete. (p. 141)

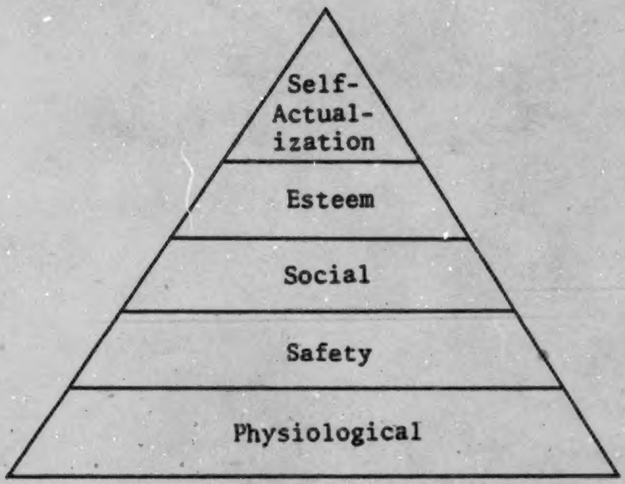
Donnelly et al. (1975) developed this simplified model of the process motivation:



(p. 142)

Needs Theory

As early as the late 1930's, efforts were being made scientifically to identify a number of human needs. The work of Murray (1938) is exemplary. But the significance of such work was not apparent until Maslow (1954) placed human needs in a hierarchy of importance. Maslow hypothesized five levels of needs, which appear in ascending order:



Maslow's widely adopted theory rests on two assumptions: (1) People have a number of needs that require some measure of satisfaction, and only unsatisfied needs motivate behavior; (2) the needs of people are arranged in a hierarchy of prepotency, which means that as each lower-level need is satisfied, the need at the next level demands attention.

Management has successfully used Maslow's theory for a number of years, although it likely does not provide the complete explanation of human motivation. In fact, Maslow's research has been challenged. Cofer and Appleby (1964) questioned his examples and data and suggested that his sources came "from among personal acquaintances and friends and from among public and historical figures." (p. 200) McClelland (1962) also cast doubt on Maslow's hierarchy by raising two questions: Is the hierarchy applicable throughout the world? Are human needs purely biological? McClelland went on to suggest (1) that human needs are acquired socially and thus vary according to living environment and (2) that in some cultures individuals may not have a need for self-actualization.

McClelland (1970), Atkinson (1964), Schacter (1959), and others have identified three major motives of human behavior: achievement, affiliation, and power. According to the researchers, individual's needs can be understood in terms of these motives. Consequently, a basic understanding of achievement, affiliation, and power may be important in evaluating worker behavior. (The Thematic Apperception Test purports to measure them.) Productivity may vary depending on the strength of a particular motive and the nature of a particular task.

McClelland (1962) described a person with a high achievement motive as one who:

- likes situations in which he takes personal responsibility for finding solutions to problems;
- tends to set moderate achievement goals and to take "calculated risks";
- wants concrete feedback on how well he is doing. (p. 105)

Elsewhere, McClelland (1970) observes that the high achiever:

> ...is in no way dependent on someone else to tell him how good his performance is. So in the pure case, the man with high *n* Achievement is not dependent on the judgment of others; he is concerned with improving his own performance. As an ideal type, he is most easily conceived of as a salesman or an owner-manager of a small business, in a position to watch carefully whether or not his performance is improving. (p. 29)

McClelland (1970) further suggested that achievement motivation may be improved through short, intensive courses. In fact, as an indication of the success of such sessions, he reported that:

> As soon as it became apparent that we could indeed change people in a relatively short period of time, many observers began to worry. Was it ethical to change people's personalities? Were we not brainwashing them? What magical power were we employing to change an underlying personality disposition presumably established in childhood and laboriously stabilized over the years? Once these questions were raised, we became aware of the fundamental dilemma confronting anyone who becomes involved in any branch of the "influence game." He may think that he is exercising leadership--i.e., influencing people for their own good--but if he succeeds, he is likely to be accused of manipulating people. (p. 32)

McClelland (1970) also observed that the success of motivation-modification courses suggested something about personality structure that ran counter to traditional psychological theory:

> Whether the psychologist is a Freudian or a learning theorist, he believes that early experiences are criti-

> cal and shape everything a person can learn, feel, and want throughout his entire life span....Yet our experience with the effectiveness of short term training courses in achievement motivation for adult businessmen in India and elsewhere does not support this view. I have seen men change, many of them quite dramatically, after only a five-day exposure to our specialized techniques of psychological instruction. They changed the way they thought, the way they talked, and the way they spent their time. The message is clear: adults can be changed, often with a relatively short exposure to specialized technique of psychological education. (p. 42)

Another important motive is that of affiliation. McClelland (1962) and Schachter (1959) both have devoted attention to the affiliation motive. Individuals with a high affiliation motive are greatly concerned with the quality of personal relationships. Schachter, in research supporting McClelland, indicated that affiliation-motivated individuals make a direct effort to visit with other individuals about their perceptions of commonly experienced things or circumstances, thus seeking confirmation for their own ideas and feelings. A common behavior pattern appears to develop with individuals who score high on affiliation; whatever the complex reasons for this need, these individuals are very conscious of their relationship to others and strive for harmony.

The third motive named by McClelland (1970) is power. This motive manifests itself in a drive for a position of authority. McClelland suggested that management may easily drift into faulty reasoning related to the type of individual who ultimately arrives at the power position. That is, it would appear that those who score high on *n* Achievement would do better work, get faster promotions, and eventually reach a high power position.

Livingston (1971) also supported McClelland's concept of the characteristics of the person who is power-motivated:

> Power seekers can be counted on to strive hard to reach positions where they may exercise authority over large numbers of people. Individual performers who lack this drive are not likely to act in ways that will enable them to advance far up the managerial ladder. They usually scorn company policies and devote their energies to other types of activities that are more satisfying to them. (p. 82)

It appears from McClelland and others that persons who score high in *n* Power direct their energy toward planning how to satisfy their need for power and control over others.

Expectancy Theory

Vroom (1964) is one of the major contributors to the expectancy theory of motivation. Five terms are important in understanding the highly theoretical model: valence, first-level outcome, second-level outcome, instrumentality, and expectancy. Valence refers to the strength of a desire for a particular outcome; first-level outcomes are interpreted as the route to second-level outcomes; second-level outcomes are the internalized activities resulting from first-level outcomes; instrumentality relates to how individuals perceive the relationship between first- and second-level outcomes; expectancy relates to the probability that specific activity will successfully lead to a first-level outcome. (p. 6)

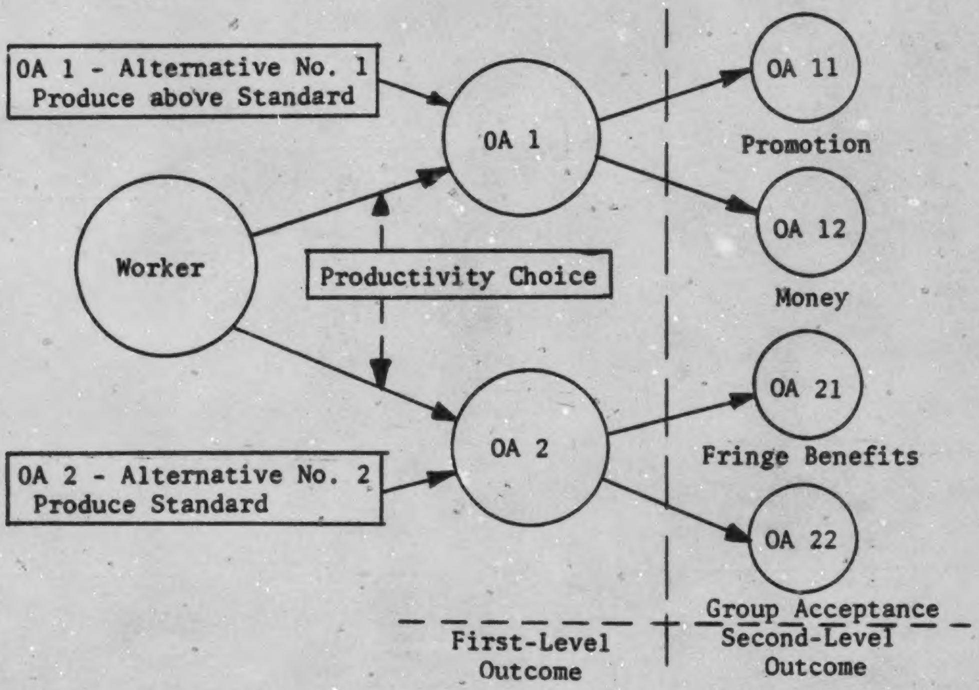
Vroom's (1964) theory and model are based on a precise definition of motivation, namely, "a process governing choices, made by persons or lower organisms, among alternative forms of voluntary activity" (p. 6).

Galbraith and Cummings (1967) summarized Vroom's model in this way:

> The individual...is faced with a set of alternative voluntary behaviors. Associated with the set of alternatives is a set of outcomes....The problem to which motivation theory addresses itself is to explain why the role occupant will choose one of the alternatives and reject the other. Approaches to the explanation of this choice process have reflected the influence of the principle hedonism. The hedonistic doctrine is based upon the assumption that behavior is directed toward pleasure and away from pain....One of the contributions of the Vroom model is that it allows the prediction of which outcomes are painful and which are pleasureable and links the concepts with empirically observable events.
>
> The Vroom model attempts to predict which outcomes are pleasureable and which are painful by introducing the motion (sic) of second-level outcomes....The second-level outcomes are viewed as events to which the first-level outcomes are expected to lead. In other words, the first-level outcomes are viewed as means to the second-level outcomes. Now, in order to predict which behavior the

> role occupant will select, one needs to know which first-level outcome is preferred. Preferences for first-level outcomes are determined by their expected relationship to the second-level outcomes. The precise method of determining preferences for first-level outcomes makes use of two concepts--valence and instrumentality. The concept of valence assumes that people have preferences for alternative states of nature. Valence then refers to the strength of the person's desire for an outcome or state of nature.
>
> Instrumentality refers to the individual's perception of the relationship between the first-level outcome and the second-level outcome. (p. 239)

The use of Vroom's model appears to be most valuable to organizations when choices are available to workers in terms of alternative levels of task-related effort and rewards. An application of the model is illustrated below:



Galbraith and Cummings (1967) summarize their empirical investigation of motivational determinants thus:

> The present study suggests that at least three conditions are necessary for a component of the organizational reward system to exert a significant and predictable impact on employee behavior: (1) the component of the reward system must be desired by the employee--i.e., it must possess positive valence in the employee's preference ordering; (2) the employee must perceive that variations in his performance level will lead to variations in the amount of reward received--i.e., perceived instrumentality must be significantly different from zero; and (3) given (1) and (2), the technology, union contract, and other environmental factors constraining the effectiveness of the reward system must be such that the organization can *vary the magnitude of the reward* component sufficiently to evoke variations in employee behavior. (p. 241)

Cognitive Dissonance Theory

Social psychologists are seeking to learn how attitudes are developed and how they may be changed. Festinger's (1957) theory of cognitive dissonance is an effort to answer questions about attitudes. It has been succinctly summarized by Maier (1973) as follows:

> This approach holds that a person who knows various items of information which do not fit together psychologically (for him) will attempt to render these dissonant items more consistent in a variety of ways.

Maier also related dissonance theory to life generally by writing that:

> When our experiences do not agree with expectations we have accumulated throughout a lifetime, we try to reduce the inconsistency. We may change our attitudes or opinions; in fact, we may even go so far as to distort our perceptions or the information we receive regarding the world about us. (p. 53)

Zajonc (1960), in reviewing the concepts of balance, congruity, and dissonance, conceptualized Festinger in this way:

> First, it is predicted that all decisions or choices result in dissonance to the extent that the alternative

> not chosen contains positive features which make it attractive also, and the alternative chosen contains features which might have resulted in rejecting it. Hence, after making a choice, people seek evidence to confirm their decision and so reduce dissonance. (p. 291)

Hampton et al. (1973) described the significance of cognitive dissonance theory to the workplace:

> The significance of cognitive dissonance for management is that, since it motivates behavior, it amounts to another determinant of how people function in organizational roles....There are indications that dissonance can be created by controls and rewards and that the resultant efforts to reduce dissonance can be either beneficial or detrimental to realizing organizational goals. (p. 21)

Group Behavior

Most individuals are members of a number of overlapping groups. Thus, behavioral scientists have devoted research to the problem of understanding the impact of group affiliation on individuals, both in and out of the workplace. Industrial psychologists are particularly interested in the structure and influence of informal groups within the formal structure of the workplace.

Individuals join groups for various reasons. Satisfaction of social needs, identification, emotional support, and a means to achieve a specific goal are four reasons suggested by Mayo (1949) and Katz (1952). Although all groups are different, there are specific characteristics that evolve which may be used to develop a system of classification. One of the key factors that influences the character and lifespan of a group is its cohesiveness. In turn, group cohesion is affected by a number of factors: homogeneity, communications, isolation, size, outside pressure, and status. Because the affective domain of work is directly related to group behavior, we have devoted the following section to a brief overview of such behavior, both in theory and practice in the workplace.

Individual Needs Met by Group Affiliation

It is generally agreed upon that the ultimate reason for the existence of a group is to provide for the needs of individuals. Schein (1956) suggested three essential purposes of informal groups.

Hampton et al. (1973) summarized Schein's findings:

> ...the group serves three functions for the individual: (1) the satisfaction of complex social needs, (2) emotional support in identifying oneself and dealing with the world, (3) assistance in meeting goals. (p. 215)

Other findings support the concept of groups providing satisfaction of complex social needs. Mayo (1956) found that isolation of workers from each other produced dissatisfaction and lower productivity. Burling and Wilson (1956) observed that when three or four workers were grouped together as a team, they became more stable and their on-the-job effectiveness increased.

Donnelly, Gibson, and Ivancevich (1975) supported Schein's concept of the group providing emotional support:

> By being members of a group, the employees can immerse themselves in the group activities and openly discuss these management demands with individuals who usually support their viewpoint. Without the group to lean on when various management demands are made, employees often assume that they are standing alone facing management and the entire organization. (p. 173)

Shils' research (1950) indicated the value of cohesive groups in lending support to individuals; for example, in World War II military settings, highly cohesive combat units consisted of soldiers who were more confident, responsible and extremely loyal to the group. Katz (1965) also found in his research that blue-collar workers likewise find support within a group; specifically, workers depended on informal work groups to maintain independence from formal organizations.

In addition to providing social and psychological support to individuals, the group also appears to be a very positive force in reaching specific objectives and goals of the individual. Shepherd (1964) reported that individuals within groups who perceive progress toward a goal are more satisfied than those who do not. Katz (1952) concluded that there are factors at work which contribute to the individual's faith in the group to meet its goals.

The lifespan and power of a group depend, as was previously noted, to a large extent on its cohesiveness. Likert (1955) suggests five conditions that contribute to cohesiveness: members expending effort toward common goals, thinking in terms of *we*, feeling friendly toward each other, acting supportively, and operating as a unit. Hampton et al. (1973) stressed that the following factors contribute to group cohesion: homogeneity, communication, isolation, size, and outside pressure. (pp. 221-222)

Group Control: Autonomy, Norms, Pressure, and Enforcement

Katz (1968) raised an interesting question in regard to the holding power of organizations related to workers in the lower ranks, namely, "How can one account for the integration of organizations that include a large number of persons who are largely disenfranchised from the organization's reward system?" Elsewhere Katz (1965) proposed the following two-part answer to this question:

> The proposed answer to the question of how workers are incorporated into complex organizations has two aspects: (1) Workers have considerable autonomy within the confines of the organization. Even when their work is prescribed in exact detail, the work role tends to be defined narrowly. This leaves a considerable portion of the worker's life within the organization undefined. (2) Workers tend to use this autonomy to bring their working-class culture into the organization, even though this is alien to the bureaucratic ethos of the higher echelons of the organization. This produces continuity between the workman's outside life and his participation in the work setting--a setting to which he has limited allegiance. This continuity in turn promotes workers' integration into work organizations. (p. 204)

Work group norms develop within the informal structure of an organization. Litterer (1973) suggests that a norm is an agreement among the group membership as to how members in the group should behave and proposed that there are three specific social processes that bring about conformity to social norms: group pressure, group review and enforcement, and personalization of norms.

Asch (1955) conducted a series of experiments to determine how group pressure controls opinion. The results have been summarized by Donnelly, Gibson, and Ivancevich (1975):

> The results of the Asch experiments showed that when individuals were confronted with only one other group member who was giving incorrect responses, they continued to stick with their correct answer. When the oppo-

> sition (those giving incorrect answers) was increased to two, the group pressure influence became noticeable: The uninformed group member accepted the incorrect answer 13.6 percent of the time. Under the group pressures provided by three incorrect responses, the uninformed members gave incorrect responses 31.9 percent of the time.
>
> This experiment illustrates how group pressures and support for one's viewpoint are related. If individuals stand alone, they are inclined to succumb to group pressures; but when they find their attitude supported by even one group member, they resist pressure to change. Individuals who value their group membership highly and satisfy some combination of personal needs by being a part of a group allow group pressures to influence their behavior and performance. (p. 183)

When individual workers become a part of a group, there are norms to which workers are expected to conform. The informal group and individuals have the power to exert pressure on the nonconforming worker, which may range from a brief discussion with the individual to sabotaging the person's work. Mechanic's research (1962) supports the idea that power exists within the lower-participants group in complex organizations:

> It is not unusual for lower participants in complex organizations to assume and wield considerable power and influence not associated with their formally defined positions within these organizations. In sociological terms they have considerable personal power but no authority....The personal power achieved by these lower participants does not necessarily result from unique personal characteristics, although they may be relevant, but results rather from particular aspects of their location within their organizations. (p. 349)

Mechanic (1962) cogently summarized his research related to lower-level power:

> In short, we have attempted to discuss power processes within organizations in a manner somewhat divorced from other major organizational processes. We have emphasized variables affecting control of access to persons, information, and facilities within organizations. Normative definitions, perception of legitimacy, exchange and coalitions have all been viewed in relation

> to power processes. Moreover, we have dealt with some attributes of persons related to power: commitment, effort, interest, willingness to use power skills, attractiveness, and so on. And we have discussed some other variables: time, centrality, complexity of power structure, and replaceability of persons. It appears that these variables help to account in part for power exercised by lower participants in organizations. (p. 350)

Tasks and The Worker

One of the primary responsibilities of managers is to motivate subordinates. The thrust of motivation is to accomplish the goals of the organization. One of the widely used motivation models in the workplace was developed by Herzberg (1959), who based his theory on a study of 200 engineers and accountants. A semistructured interview was conducted to determine conditions that led to good and bad feelings about facets of each individual's job. Donnelly, Gibson, and Ivancevich (1975) summarized Herzberg's findings:

> There are some conditions of a job which operate primarily to dissatisfy employees when they are not present. However, the presence of these conditions does not build strong motivation. Herzberg calls these maintenance or hygiene factors since they are necessary to maintain a reasonable level of satisfaction. He also noted that many of these have been perceived by managers as factors which can motivate subordinates, but that they are, in fact, more potent as dissatisfiers when they are absent. He concluded that there were ten maintenance factors, namely:
>
> a. company policy and administration
> b. technical supervision
> c. interpersonal relations with supervisor
> d. interpersonal relations with peers
> e. interpersonal relations with subordinates
> f. salary
> g. job security
> h. personal life
> i. work conditions
> j. status
>
> There are some job conditions, which, if present, build high levels of motivation and job satisfaction. However, if these conditions are not present, they do not prove

highly dissatisfying. Herzberg described six of these as motivational factors or satisfiers:

a. achievement
b. recognition
c. advancement
d. the work itself
e. the possibility of personal growth
f. responsibility (p. 153)

Herzberg's two-factor theory has been challenged by a number of people. One observed limitation was that his sample consisted predominantly of white-collar workers. Malinovsky and Barry (1965) conducted research with blue-collar workers using Herzberg's model and found that pay and job security are motivational, rather than maintenance, factors for these workers. Vroom (1964) also questioned Herzberg's conclusions:

> Persons may be more likely to attribute the causes of satisfaction to their own achievements and accomplishments on the job. On the other hand, they may be more likely to attribute their dissatisfaction not to personal inadequacies or deficiencies but to factors in the work environment; i. e., obstacles presented by company policies or supervision. (p. 129)

House and Wigdors (1967) implied that the two-factor theory is an oversimplification:

> Our secondary analysis of the data presented by Herzberg (1966) in his most recent book yields conclusions contradictory to the proposition of the Two-Factor theory that satisfiers and dissatisfiers are unidimensional and independent. (p. 369)

These two authors (1967), in reviewing a number of previous studies that did not use Herzberg's method, reached four conclusions:

(1) A given factor can cause job satisfaction for one person and job dissatisfaction for another person and vice versa.

(2) A given factor can cause job satisfaction and dissatisfaction in the same sample.

(3) Intrinsic job factors are more important to both

satisfying and dissatisfying job events.

> (4) These conclusions lead us to agree with the criticism advanced by Dunnette, Campbell, and Hakel (1967) that the Two-Factor theory is an oversimplification of the relationships between motivation and satisfaction, and the sources of job satisfaction and dissatisfaction. (p. 380)

In spite of the justifiable criticisms of his theory, Herzberg made a significant contribution to a better understanding of motivation at the workplace.

In other work-motivation research, Porter and Lawler (1968) developed a model that incorporated a number of concepts relating to performance on the job. The model included these concepts: effort, ability, performance, motivation, attitudes satisfaction, and rewards (as illustrated below). (p. 105) They tested their model by using a sample of over 400 managers, and it appears that their findings support the model. Bass and Barrett (1972), interpreting the model, observed that if an individual believes significant rewards depend on job performance, then he will direct an effort toward performing effectively. (pp. 104-107)

Bass and Barnett (1972) offered the following brief step-by-step explanation of this performance-satisfaction model:

> (1) Value of Reward. There are a number of rewards that individuals can receive from any job situation. They include pay, promotion, achievement on a job, and friendship of the fellow workers. These rewards are differently perceived by individuals; some place more value on certain rewards than others. The desirability of a given outcome is clearly a matter of "attitudes" as we have discussed them.
>
> (2) Perceived Effort-Reward Probability. This refers to the employee's expectation that his efforts will actually lead to desired rewards. For example, assume promotion were a valued goal, but the individual knew that all his efforts would not help because no opening was likely to be available. In this case, the likelihood of effort, despite a highly valued goal, would be small.

(3) Effort is the central variable in the Porter and Lawler model, and is defined as the energy expended in attempting to perform a task. The emphasis here is on the attempt, which does not necessarily lead to effective or successful performance. While there is a relationship between effort expended and success, we know the relationship is far from perfect. We all know examples of individuals in the classroom and on the sports field who put in less time and energy than others but perform at a higher level. That effort is not the whole story is partly explained by variable 4.

(4) Abilities and Traits. We know that there are great differences between people's abilities and traits, and that these differences are usually of a long-term nature, not easily changed. Abilities and traits put an upper limit on the degree to which effective or successful performance will result from the application of effort.

(5) Role Perceptions deal with how the individual defines his job. Two people, both aiming for what they believe to be effective performance, may define the same job in different ways, and thus spend their energies in different ways, achieving different levels of performance.

(6) Performance is the variable in which most organizations are interested. It is the degree of success achieved in accomplishing organizationally relevant tasks. It is the net effect of his efforts, modified by his abilities and traits, and how he spends those efforts as a function of his perceived role requirements.

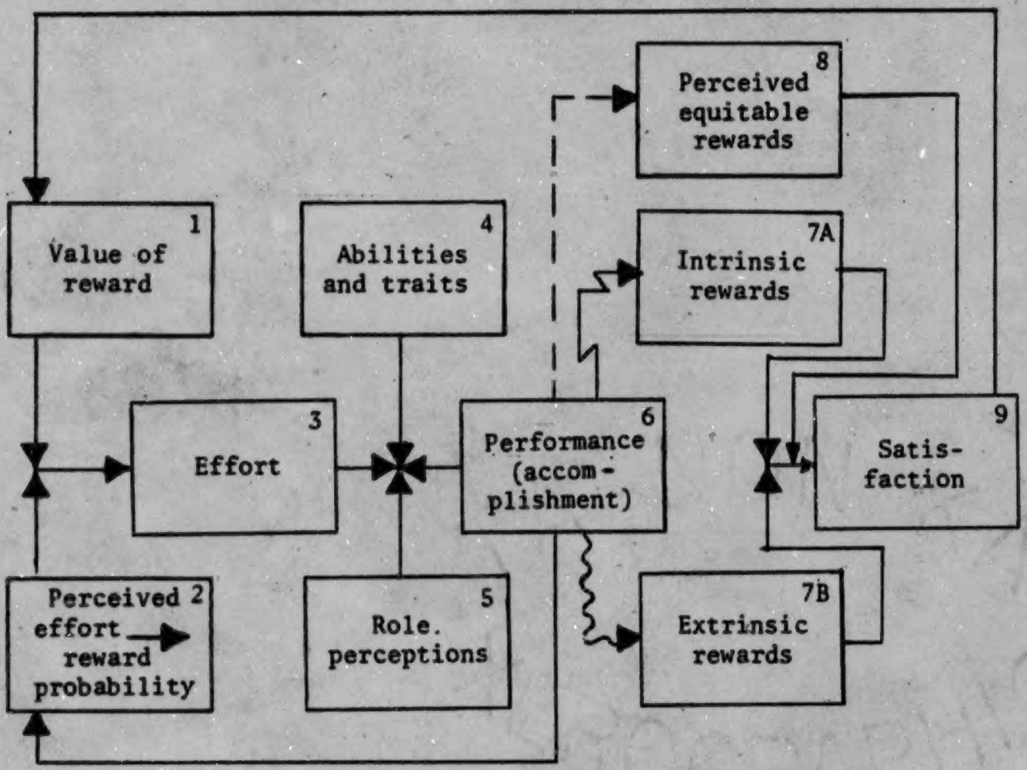
(7) (A and B) Rewards are those desirable outcomes which the individual sees as resulting from his own perception, and the evaluation of these outcomes, of course, is a matter involving attitudes....For example, if the individual receives something from his performance which is unwanted, it would clearly not be viewed as a reward, whether the organization defines it as one or not.

Intrinsic Rewards (7A) are those which are administered by the individual himself. These intrinsic rewards (e.g., a feeling of accomplishment) satisfy higher needs of autonomy and self-actualization. They appear to produce attitudes which are significantly related to the individual's performance. The semiwavy line indicates that there can be a direct action between the performance of the worker and intrinsic rewards if the job design provides the necessary challenge to the worker.

Extrinsic Rewards (7B) are those which are given to the individual by the organization (e.g., promotions or raises). The wavy line in the diagram implies that these rewards may not always be tied to performance.

(8) Perceived Equitable Rewards. This is an expression by the individual of the reward he thinks is fair, taking into account his perception of his performance on organizational tasks. The dashed line from performance to perceived equitable rewards indicates that an individual's self-ratings of performance influence how he feels about the level of reward he should receive.

(9) Satisfaction is the extent to which the rewards received by the individual meet or exceed what he perceives to be an equitable level. If the actual rewards fall below perceived equitable rewards, the person will be dissatisfied. The feedback loop from satisfaction to value of reward indicates that once an individual has received some satisfaction from certain rewards, this will have an effect on future value of rewards. For example, if an individual has just received a large raise and this reward has given him satisfaction, he might feel that the value of additional money has been satisfied for the time being, so that he might now value some other reward more highly (e.g., recognition). (pp. 104-107)



SUMMARY

Affective work competencies (work attitudes, values, and habits) are manifested in the work behaviors of individuals within organizations. This section, therefore, focused on the behaviors of individuals and groups in both historical and theoretical perspectives.

A brief historical review sketched the shifting attitude of organizations toward workers. Early classical management theory emphasized *economic man*. It assumed that successful organizations should scientifically analyze the task, train workers to fit it, then offer the proper monetary incentive for motivation in order to increase efficiency. The steps were thought to develop productive employees. The Hawthorne Studies cast doubt on this assumption and shifted attention to the whole human personality element. Researchers reported that, although a significant factor, physical environment was less influential on productivity than this element.

Industrial psychologists, therefore, turned to psychology, sociology, and anthropology for an understanding of human factors in the workplace. One of the major questions asked was "What motivates the worker?" It appeared that motivation, needs, and goals were closely linked. Needs theories, therefore, became one of the areas of interest to the industrial psychologists. Murray's list of needs and Maslow's effort to set basic human needs into a hierarchy became the theoretical construct for application in the workplace. Although researchers questioned Maslow's hierarchy, the model has been used successfully by many organizations.

While such theorists as McClelland, Vroom, and Festinger contributed to the concepts of motives, expectancy, and dissonance, their efforts did not primarily focus on the workplace. Herzberg was one of the early researchers who worked extensively within organizations. His Two-Factor theory directed attention to factors that affect worker satisfaction and dissatisfaction. A number of people questioned segments of Herzberg's research. Nevertheless, the basic principles of the theory have been successfully applied in the workplace. More recently, Porter and Lawler developed the performance-satisfaction model that has stood early testing in the workplace.

Most individuals live the major portion of their lives in groups. The workplace is no exception. An informal structure exists within the formal structure of organizations. Psychologists generally agree that the ultimate reason for the existence of a group is to provide for the needs of individuals; research indicates that the informal work group lends social and psychological assistance to individuals. Mayo found that isolation of workers from each other produced dissatisfaction and lower productivity. Katz suggested that informal work groups served to hold workers within organizations. Asch concluded that group pressure may control the opinion of individuals. Mechanic elaborated on the power of workers in the lower ranks of organizations and the pressure that the informal work group may exert on new workers to force them to conform to the group norms. It is obvious that an understanding of informal work groups is invaluable information for management.

Our review thus far supports the concept that theorists and practitioners have directed effort toward gaining a better understanding of human behavior both in and out of the workplace. Psychologists are very much aware of the psychological impact (of work environment) on workers who have a history of absenteeism and poor job performance, which in turn has adverse economic effects on the organization. Absenteeism and turnover are costly to both workers and organizations.

A base of knowledge of human behavior both in and out of the workplace is desirable and available. We know that needs are closely linked to motivation and goals; we know of behavioral models that have been successfully used in organizations; we know of successful managerial systems that have been built from theoretical models. However, we have not successfully used this base on a broad scale either in organizations or educational settings, especially as it relates to occupational preparation in vocational education programs.

Organizations and educators must draw from the base of knowledge of human behavior in the workplace. They have a responsibility to use this knowledge to develop a more satisfied, motivated, efficient, and stable work force. Vocational educators, particularly, must be aware of this knowledge base in order to help their students understand the expectations of both formal and informal organizations and to understand their own behavior under varying conditions in the workplace.

Organizations and educators have made an effort to understand behavior by investigating its causes. However, there is another significant aspect of behavior: the evaluation component. Evaluation is based on approval or disapproval. Approved behavior in the workplace may be defined as positive affective work competencies---which include work attitudes, values, and habits. Organizations and vocational educators have recognized the trend toward automation, which is absorbing many of the operations once performed by workers. Subsequently, some are beginning to recognize that affective work competencies are of greater importance as vocational survival skills than ever before.

A base of empirical data related to successful affective work competencies is gradually being assembled. We turn to the research directed toward identifying and assessing *specific* affective work competencies.

AFFECTIVE WORK COMPETENCIES: AN EMPIRICAL BASE

Research related to the social and psychological, that is, affective, aspects of work has revealed evidence of a shift in emphasis concerning employees. Studies by industry and educators indicated that the shift is from the cognitive and psychomotor to the affective. Many of these investigations have been aimed specifically at identifying desirable affective work competencies perceived by employers and educators and experienced by employees.

Affective Work Competencies Identified By Employers and Employees

Over the past several years industry has begun to analyze the social and psychological aspects of work. A number of competencies required of employees for continued, successful, and efficient employment have been identified. Our review has revealed that concern has arisen over the reasons employers discharge or fail to promote employees. Attempts have been made by industry to identify the characteristics employers require of employees and the characteristics employees perceive as important for maintaining employment. In addition, several sources reveal that affective work factors are considered as criteria when employees are rated.

Reasons Industry Discharges or Fails to Promote Employees

Boynton (1955), with data from seventy-six large corporations, reported that the largest percentage of workers discharged or not promoted lacked social, that is, affective work competencies. Among the negative characteristics identified were noncooperative behavior, dishonesty, and lack of courtesy. (p. 4)

The Current River Area Vocational School curriculum project in Missouri (1973) utilized similar findings in the development of a career orientation and exploration program for grades eight and nine. The project identified twelve reasons employers discharge or fail to promote employees. Among the reasons identified were unwillingness to follow rules, troublemaking, irresponsibility, lack of adaptability, and misrepresentation.

The combined efforts of these sources provided a set of fifteen work-related reasons why employers discharge or fail to promote employees. None of these reasons is related to lack of specific job skills or technical job knowledge. It also is interesting to note that among the reasons listed seven are common to both sources.

Table 1. Reasons Employers Discharge or Fail to Promote Employees

Boynton	Current River	(Combined)
1. Carelessness	1. Carelessness	*1. Carelessness
2. Laziness	2. Laziness	*2. Laziness
3. Absence	3. Absence or tardiness without cause	*3. Absence/tardiness
4. Lack of loyalty	4. Disloyalty	*4. Disloyalty
5. Attention to outside things (distraction)	5. Too much attention to outside interests (distraction)	*5. Distraction a. attention to outside things b. too much attention to outside interests
6. Lack of ambition	6. Too little or too much ambition	*6. Too little or too much ambition
7. Lack of initiative	7. Lack of initiative	*7. Lack of initiative
8. Dishonesty	8. Unwillingness to follow rules	8. Dishonesty
9. Noncooperative	9. Troublemaking	9. Noncooperative
10. Tardiness	10. Irresponsibility	10. Lack of courtesy
11. Lack of courtesy	11. Lack of adaptability	11. Unwillingness to follow rules
	12. Misrepresentation	12. Troublemaking
		13. Irresponsibility
		14. Lack of adaptability
		15. Misrepresentation

*Items identified by both sources.

Affective Work Competencies Required by Employers

Russon (1946) surveyed business leaders in New Orleans and asked, "To what do you attribute your success?" Twenty items were identified; seven related to the affective domain, including perserverance, endurance, desire to be helpful, and a sense of humor. (p. 9)

Johnson (1971) arranged sixteen unstructured meetings between educators and business/industry leaders to discuss a number of significant problems. In taped sessions employers identified punctuality, accuracy,and dependability as major concerns related to new employees. She reported:

> Businessmen find that students who have just finished their schooling and are starting on their first jobs have no idea what is expected of them by their employers. They are startled to learn that they are expected to be on time and to come to work every day. Often, when they meet the first frustration, or when they are expected to put out a hard day's work, they quit rather than see it through. (p. 60)

Regarding the educational process, employers responded:

> Schools need to be more careful to train people in precision. For many, an approximation of the right form seems adequate. Some of the instructional methods seem to tolerate haphazard or sloppy responses. Industry must have accuracy. (p. 60)

Ellerback (1977), reporting on a dialogue between a shop teacher and an industrial employer, identified seven essential characteristics of employees: willingness to cooperate, self-discipline, initiative, willingness to learn, flexibility, personality, and character skills, that is, performance as a co-worker. Regarding attitudes, the employer responded:

> If you don't know how to read blueprints, we can teach you that....but how are we going to teach self-discipline, initiative and a willingness to work? (p. 31)

While discussing the amount of training needed to get a good job, the employer further noted that "the employer may overlook a lack of experience, but not a lack of character." (p. 31)

The Career Orientation and Exploration program at the Current River Area Vocational School in Missouri (1973) identified seventeen characteristics for which employers are looking. Four of the major ones (dependability, cooperation, initiative and willingness to learn) were among those reported by both Johnson and Ellerback.

Feirer (1976) discussed what industry and business expect from vocational education. He stated that when one asks the average industrialist or business executive, "What do you want from our vocational educaton programs?", the usual answer will be, "Just give me some people who are honest, reliable, punctual, dedicated, pleasant, responsive and free from all vices." (p. 4)

Based on these sources, twenty-eight work competencies employers deemed necessary for successful employment have been identified. Of these, nine were identified by more than one source. (See Table 3.) Considerable variance appears to exist among employers regarding desirable affective work competencies required for successful employment.

Table 2. Affective Work Competencies Identified by Employers

Russon	Johnson	Ellerback
1. Perseverance	1. Punctuality	1. Willingness to cooperate (cooperation)
2. Self-confidence	2. Accuracy	2. Self-discipline
3. Endurance	3. Dependability	3. Initiative
4. Judgment		4. Willingness to learn
5. Desire to be helpful (helpfulness)		5. Flexibility
6. Sense of humor		6. Personality
7. Impartial mind		7. Character skills--performance as a co-worker

Current River	Feirer
1. Good work attitudes	1. Honesty
2. Dependability	2. Reliability
3. Cooperation	3. Punctuality
4. Initiative	4. Dedication
5. Pride in work	5. Pleasant manner
6. Ability to get along with others (cooperation)	6. Responsiveness
7. Honesty	
8. Enthusiasm	
9. Cheerfulness	
10. Ability to listen and carry out instructions	
11. Loyalty	
12. Efficiency--not wasting time and materials	
13. Reliability	
14. Good and prompt attendance (punctuality)	
15. Helpfulness	
16. Willingness to learn	
17. Ability to follow rules and regulations	

Table 3. Categorized Affective Work Competencies Identified by Employers

*1. Punctuality--good and prompt attendance
*2. Honesty
*3. Reliability
*4. Dependability
*5. Initiative
*6. Helpfulness--a desire to be helpful
*7. Cooperation
    a. Willingness to cooperate
    b. Ability to get along with others
    c. Character skills--performance as a co-worker
*8. Willingness to learn
*9. Pleasantry--sense of humor
10. Accuracy
11. Perseverance
12. Endurance
13. Judgment
14. Dedication
15. Responsiveness
16. Personality
17. Flexibility
18. Enthusiasm
19. Cheerfulness
20. Loyalty
21. Pride in work
22. Self-confidence
23. Self-discipline
24. Impartiality
25. Good work attitudes
26. Ability to listen and carry out instructions
27. Ability to follow rules and regualtions
28. Efficiency--not wasting time and materials

*Identifies concepts extrapolated from more than one study

Affective Work Competencies According to Employees and Employee Ratings

Guest (1955) conducted a follow-up of eighteen automobile factory workers who had quit their jobs. Their reasons for quitting included repetition of simple motions, mechanically controlled work pace, minimum skill requirements, predetermination of tools and methods of performing operations, minute subdivisions of the product, surface mental attention, and considerable amount of sustained physical activities. Several reasons were given by workers for accepting new jobs. They felt they were in control of the new job and were more independent, had greater control over the pace of work, and were no longer anonymous cogs in a vast machine. They also believed future opportunities looked more promising in terms of income and that being able to get into a job was more challenging.

Wilson (1973) identified twelve personal traits and three job performance qualities of a good employee. The job qualities were job knowledge and quantity and quality of work output. Among the traits identified were cooperativeness, honesty, adaptability, ambition, and neatness. (p. 14) (See Table 4.)

O'Neil (1976) identified occupational survival skills as recognized by employees. She listed twenty-seven basic skills which involved the major areas of interpersonal relations and communications, personal characteristics, decision making and problem solving, job characteristics, health and safety. Fifteen interviewers conducted a telephone survey of 589 workers in Illinois and asked them to rate these skills according to importance in retaining their job. Five were rated as extremely important and twelve as important. In addition, most workers indicated that they kept their jobs because of salary, security, or work satisfaction. No one primary reason was given for disliking their jobs. Interpersonal relations was a reason cited most frequently by those who found an aspect of their job that they disliked. Furthermore, the majority of respondents who held previous jobs indicated that a personal reason was the primary factor in their having left their last jobs. (pp. 4-5)

Khurana (1973) revealed a number of factors necessary for a business to succeed and provided eight recommendations industry should consider. The researcher felt that for industry to succeed, dependable and capable people are needed. In order to increase productivity and quality, responsible, efficient, dedicated and devoted people with pride in their work are essential. Furthermore, industry must seek a joint commitment from unions to boost production, reduce unnecessary costs, and cut absenteeism. In order to accomplish these goals, Khurana recommended that industry do the following: seek and obtain complete and full involvement of everyone, make all participants feel important and part of the team, acknowledge sincere coordination and cooperation, maintain frank and honest communication, allow employees to be part of the team, provide challenging and rewarding assignments, stop grievances before they stop work, and make quality-consciousness everybody's business. (pp. 12-13)

The rating of employees revealed that a number of affective factors are considered. Springer (1953) compared the ratings made by co-workers and supervisory personnel on 100 candidates for promotion to *leadman* in fourteen departments of a major aircraft company. Comparisons were made between ratings given each candidate by a supervisory person and a co-worker and by two supervisory members and two co-workers. The factors rated on the co-worker form were job knowledge and performance, cooperation, and suitability for promotion to *leadman*. The factors rated by supervisory personnel were job knowledge, quality and quantity of work done, co-operation, drive, observance of rules, personal appearance and manner, and suitability for promotion to *leadman*. Her findings revealed a low, positive degree of relationship between ratings by supervisory personnel and co-workers and a slightly higher degree of agreement between ratings of pairs of co-workers. The highest correlation existed between ratings by pairs of supervisors. In any case, the ratings comparisons show that both management and labor feel that affective factors are important. (pp. 347-351)

Parker et al. (1959) conducted a study in which clerical workers were rated by supervisors and themselves, and then were asked to estimate supervisory ratings. The areas for rating were ability to work with others, amount and quality of work done, leadership potential, ability to do complicated jobs, ability to work with minimum supervision, conscientiousness, and overall performance. Analysis of mean difference showed self-rating to be most lenient with estimate ratings almost half-way between self- and rater-ratings. Striking differences existed between the ways in which supervisors and workers viewed the relationship between personal and job traits. Even so, the study indicated that both components--workers and supervisors--consider worker traits to be important.

Rothwell and Baker (1970) attempted to determine if job success could be predicted by proficiency ratings and personality traits when stenographic or secretarial employees were evaluated by employers. Ninety-nine employers evaluated 123 graduates using the Minnesota Satisfactoriness Scales to measure job performance. The results revealed that the most significant personality factors for predicting job success were shyness, tender-mindedness, intelligence and emotional stability.

Dyer et al. (1972) studied 1,018 nurses from thirty-one Veterans Administration hospitals in an effort to determine if job performance can be predicted from biographical, personality, and administrative-climate inventories. The findings revealed that high performing nurses generally had higher California Psychological Inventory profiles than low performing nurses, and scored significantly in social presence, sense of well-being, responsibliity, tolerance, achievement via conformance, and intellectual efficiency.

Based on these sources, a total of twenty-nine combined affective work competencies have been identified from studies of employees and employee ratings. Of these, seventeen have been extrapolated from more than one source. (See Tables 4 and 5.)

Table 4. Affective Work Competencies Identified by Employees and Employee Ratings

Guest

Reasons for Accepting Jobs

1. They felt in control of the new job (independence)
2. They were more independent (independence)
3. They had greater control over the pace of work (independence)
4. They were no longer anonymous cogs in a vast machine
5. Future opportunities look more promising in terms of income and being able to get into a job which was more challenging (ambition/challenging work)

Wilson

Personal Traits

1. Gets along with people (cooperation)
2. Loyal and conscientious
3. Cooperative

Table 4--*(continued)*

Wilson --*(continued)*

4. Emotionally stable
5. Honest
6. Cognizant of job responsibilities (responsible)
7. Good personal life (emotionally stable)
8. Observes regulations/rules
9. Adaptable
10. Ambitious
11. Good listener
12. Neat (personal appearance and manner)

Job Performance Qualities

1. Knowledge of job (capable)
2. Quantity of work
3. Quality of work

O'Neil

Extremely Important

1. Being dependable
2. Giving an honest day's work (quantity of work)
3. Knowing what is expected of you (responsible)
4. Maintaining good health
5. Managing time and materials efficiently (efficient)

Important

1. Getting along with people with a variety of personalities (cooperative)
2. Working as a team member (cooperative)
3. Understanding written materials (capable)
4. Having basic writing skills (capable)
5. Knowing your own abilities, strengths, and weaknesses (emotionally stable)
6. Being loyal to the organization for which you work
7. Making independent decisions
8. Using initiative and imagination
9. Locating information, materials, or equipment (capable)

Table 4--*(continued)*

O'Neill--*(continued)*

10. Working without close supervision (independent)
11. Adjusting to various work situations (adaptable)

Khurana

People Factors

1. Dependable
2. Capable
3. Responsible
4. Efficient
5. Dedicated
6. Devoted
7. Pride in workmanship
8. Punctuality

Springer

Co-worker

1. Job knowledge (capability)
2. Overall job performance
3. Cooperation
4. Ability to train others
5. Suitability for promotion to *leadman* (leadership potential)

Supervision

1. Job knowledge (capability)
2. Quality of work done
3. Quantity of work done
4. Cooperation
5. Drive (ambition)
6. Observing rules and regulations
7. Personal appearance (neatness) and manner
8. Suitability for promotion to *leadman* (leadership potential)

Table 4--*(continued)*

Parker

1. Ability to work with others (cooperation)
2. Amount (quantity) of work done
3. Quality of work
4. Leadership potential
5. Ability to do complicated jobs (capability)
6. Ability to work with minimum supervision (independence)
7. Conscientiousness
8. Overall job performance

Rothwell/Baker

1. Shyness
2. Tender-mindedness
3. Intelligence
4. Emotional stability

Dyer et al.

1. Social presence (emotional stability)
2. Sense of well-being (emotional stability)
3. Responsibility
4. Tolerance
5. Achievement via conformance (quantity of work done)
6. Intelligence

Table 5. Combined Affective Work Competencies Identified by Employees and Employee Rating Forms

*1. Dependability--working under tension or pressure
*2. Loyalty and conscientiousness--being loyal to the organization for which you work
*3. Adaptability--adjusting to various work situations
*4. Efficiency--managing time and materials efficiently

Table 5--*(continued)*

*5. Responsibility--cognizance of job responsibilities
*6. Cooperation
  a. Getting along with other people
  b. Ability to work as team member
*7. Leadership potential--suitability for promotion to leadman
*8. Capability
  a. Having basic writing skills
  b. Understanding written materials
  c. Job knowledge
  d. Locating information, materials, or equipment
*9. Independence--making independent decisions
  a. Making independent decisions
  b. Working without close supervision
*10. Emotional stability
  a. Sense of well-being
  b. Good personal life
  c. Social presence
  d. Knowing your own abilities, strengths, and weaknesses
*11. Ambition
  a. Drive
  b. Future opportunities look more promising in terms of income and being able to get a job which was more challenging
*12. Observing rules and regulations
*13. Quantity of work done
  a. Giving an honest day's work
  b. Achievement via conformance
*14. Quality of work done--pride in workmanship
*15. Personal appearance--neat manner
*16. Overall job performance
*17. Intelligence--intellectual efficiency
18. Dedication
19. Devotion
20. Punctuality
21. Honesty
22. Shyness
23. Tender-mindedness
24. Tolerance
25. Good listener
26. Maintaining good health
27. Using initiative and imagination

Table 5--*(continued)*

28. Ability to train others
29. They were no longer anonymous cogs in a vast machine

* Extrapolated concepts from psychological and sociological factors indicated by empirical data.

AFFECTIVE WORK COMPETENCIES IDENTIFIED BY EDUCATORS

A number of recent investigations have been directed at discoveries and/or validating social and psychological competencies that educators should consider in training prospective employees. The studies revealed that work values, adjustment, habits, and attitudes all play a significant role in the development of successful employees.

Work Values and Work Adjustment

In a comprehensive review and synthesis, Kazanas et al. (1973) related significant occupational and psychological characteristics (perspectives, leisure, job satisfaction and productivity) to the meaning and value of work in American society. The study revealed that work values do have significant implications both at and beyond the workplace. An abbreviated summary describing the definite and explicit concerns for vocational and technical educators is illustrated below:

Identified Trends	Implication that Vocational and Technical Educators Should:
1. Growing concern that today's youth may not be developing a well-defined "work ethic."	1. Cooperate with business and industry to accomodate the changing nature of work and opportunities for employment.
2. Society's occupational orientation is transferring from that of "producing goods" to that of "producing services."	2. Structure their programs to respond to the person's needs for self-determination in their work as well as in their lives.

Identified Trends	Implication that Vocational and Technical Educators Should:
3. There will be an earlier obsolescence of specific job skills and knowledge.	3. Assist business and industry in developing programs to reflect more meaningful concepts of work.
4. Increased time and interest are devoted to leisure activities.	
5. Workers tend to increasingly demand more personal meaning, value, and satisfaction from the work they perform.	
6. Labor force will include more (a) 25 to 34 year-old workers, (b) women, and (c) minority group members.	
7. Workers will choose occupations with work values that help fulfill personal needs.	
8. More emphasis will be placed on adult and continuing education.	

In other recent studies of work values and work adjustment, researchers have identified several affective work aspects. Kazanas et al. (1975), in an extensive review, developed a two-part instrument to measure the meaning and value of work. The second part, on the value of work, identified seven intrinsic and seven extrinsic factors associated with work. The intrinsic factors were satisfaction, independence, self-discipline, altruism, self-realization, interesting work, and self-actualization; the extrinsic factors were money, working conditions, prestige, interpersonal relations, social status, recognition, and security.

In still another recent investigation, Kazanas (1977) used the Meaning and Value of Work Scale, the Minnesota Satisfaction Questionnaire and the Minnesota Satisfactoriness Scale to determine the relationship of job satisfaction and productivity to work values of vocational education graduates. The results suggested that job productivity and satisfaction can be partly explained in terms of the work value orientation of the graduates and that the meaning graduates attached to the term *work* was important in explaining their job satisfaction. (p. 3) He concluded that the results were

"...consistent with recent writings which advocate that the traditional work ethic in our society is gradually being replaced by a set or system of work values." (p. 8)

Investigating another sector of the work community, Rosen and Teakan (1969) attempted to develop values in hard-core unemployed workers in order to facilitate work adjustment. They identified regularity of attendance, punctuality, conformity to rules and regulations, and motivation to accept and perform job demands as necessary factors for successful employment--*successful employment* meaning a lasting integration of the hard-core unemployed.

Golden and Weiss (1968) tested the theory of work adjustment proposed by Dawis, England and Lofquist (1964). This theory uses the correspondence (or lack of it) between the worker personality and the work environment as the principal reason for observed work adjustment outcomes. A questionnaire measuring satisfaction, needs, and reinforcer level on twenty dimensions of work was returned by a total of 179 persons in various occupations. The results supported eleven of the twenty dimensions and identified such items as responsibility, recognition, and independence as important to work adjustment.

Garbin et al. (1967), in a study of transition from high school to work, identified forty-nine specific worker adjustment problems. Sixty-nine vocational educators were asked to respond to a questionnaire on their perceptions of factors impeding work adjustment. Based on their responses, forty-nine problems were categorized under twelve headings. Four of these--personality variables, attitudes expressed in behavior or adjustment to situations, vocational behavior, and factors inherent in the job--were related to the affective domain of work. The researchers concluded:

> The provisions for training of youth congruent with the technical requirements of available jobs is not enough to guarantee a facile adjustment to the world of work; successful job adjustment also entails adjustment to the non-technical aspects of the work situation. (p. 3)

Based on these studies of work values and adjustment problems, eighteen affective factors have been identified and categorized. (See Table 7.) Of these, thirteen have been extrapolated from more than one source.

Table 6. Identification of Affective Work Values and Work Adjustment Problems

Kazanas et al.

Value of Work Factors (Intrinsic)

1. Satisfaction (emotional stability)
2. Independence
3. Self-discipline (responsibility)
4. Altruism (devotion)
5. Self-realization
6. Interesting work
7. Self-actualization

Value of Work Factors (Extrinsic)

1. Economic
2. Working conditions
3. Prestige
4. Interpersonal relations
5. Social status
6. Recognition
7. Security

Rosen & Teahan

1. Regularity of attendance
2. Punctuality
3. Conformity to work
4. Rules and regulations
5. Motivation to accept and perform job demands

Golden & Weiss

1. Ability utilization
2. Achievement
3. Activity
4. Advancement

Table 6--*(continued)*

Golden & Weiss--*(continued)*

5. Authority
6. Company policy
7. Compensation
8. Co-workers
9. Independence
10. Moral values
11. Creativity
12. Recognition
13. Responsibility
14. Security
15. Social services
16. Social status
17. Supervision--human relations
18. Supervision--technical
19. Variety
20. Working conditions

Garbin et al.

Personality Variables

1. Unrealistic aspirations and expectations
2. Lack of future-orientation or long-range goals
3. Loss of security and status; fear of loss on individuality
4. Self-concept, self-esteem

Attitudes Expressed in Behavior or Adjustment to Situation

1. Poor attitudes toward work and working
2. Lack of responsibility, maturity, and self-discipline
3. Lack of initiative, self-confidence, and motivation
4. Poor personal appearance and health habits
5. Inability to budget time, cope with personal problems, etc.

Table 6--*(continued)*

Garbin et al.--*(continued)*

Vocational Behavior

1. Inability to cope with real demands of work
2. Supervision-employee relations, lack of respect for authority, willingness or ability to follow directions, willingness to take criticism
3. Poor work habits, absenteeism, tardiness
4. Inability to get along with fellow workers
5. Inability to meet people

Factors Inherent in Job

1. Employers' unrealistic expectations; unnecessarily high job requirements
2. Employers' preference for experienced workers they don't have to train
3. Employers ignore training when placing workers
4. Training doesn't always fit the job at lowest level
5. Impersonality of large organizations; often motivated by self-interest
6. Monotonous work--no challenge
7. Lack of designated responsibility

Table 7. Categorized Affective Factors from Work Values and Work Adjustment Problems

1. Punctuality
    a. regular attendance
    b. poor work habits, absenteeism, tardiness
*2. Independence
    a. fear of loss of individuality
    b. employers' preference for experienced workers they don't have to train
*3. Ambition
    a. lack of future-orientation or long-range goals
    b. self-actualization
    c. motivation to accept and perform job demands
    d. advancement
    e. unrealistic aspirations and expectations
    f. employers' unrealistic expectations
*4. Responsibility
*5. Emotional stability
    a. inability to budget time, cope with personal problems, etc.
    b. moral values
    c. self-concept, self-esteem
    d. self-realization
    e. social status
    f. poor attitudes toward work and working
    g. willingness to take criticism
    h. inability to cope with real demands of work
    i. inability to meet people
    j. social services
    k. satisfaction
    l. self-confidence
*6. Recognition
    a. impersonality of large organization; often motivated by self-interest
    b. prestige
*7. Cooperation
    a. co-workers
    b. interpersonal relations
    c. lack of respect for authority
    d. supervision-employee relations
    e. inability to get along with fellow workers
    f. supervision-human relations
    g. authority
*8. Compensation (economic)
*9. Security

Table 7--*(continued)*

*10. Variety
    a. monotonous work--no challenge
    b. activity
*11. Working conditions
*12. Follows directions
    a. conformity to work rules and regulations
    b. supervision (technical)
    c. willingness or ability to follow directions
    d. company policy
*13. Capability
    a. employers ignore training when placing workers
    b. training doesn't always fit the job at lowest level
    c. ability utilization
14. Altruism
15. Achievement
16. Creativity
17. Lack of initiative
18. Poor personal appearance and health habits

*Extrapolated concepts from psychological and sociological empirical data.

Work Habits and Attitudes

Kazanas and Wolff (1972) reviewed research dealing with the development of work habits. They described the implications related to vocational education and program improvement. They also described the status of research on work habits and established links between work habits and theory (Krathwohl, 1949), work habits and personality adjustment (Throne, Boles, and O'Leary, 1950), work habits and desirable personal and social traits (Bruner, 1932; Brody, 1952; Green, 1958), work habits and achievement (O'Leary, 1955), work habits and the mentally retarded (Folsom, 1966; Neuhaus, 1967); and they described the methods of teaching work habits (Delfosse, 1956; Rull and Moore, 1968; U.S. Office of Education, 1968; U.S. Department of Labor, 1965, 1968). Kazanas and Wolff concluded:

> ...the methods by which work habits can be identified and broken down into specific elements for instructional purposes have not been adequately researched. Therefore, a great need for research on work habits is present.

> The research completed thus far has not dealt with effective work habits of specific occupations or occupational clusters. The identification of work habits and the processes of teaching and acquiring them are areas to which vocational educators must direct more concentrated research effort. (p. 56)

Throne, Boles, and O'Leary (1950) conducted a workshop in an attempt to identify good work habits; among those identified were concentration, responsibility, initiative and following directions.

In a later study, O'Leary (1955) attempted to determine the relationship of work habits of under- and over-achievers to achievement. Fifteen work habits were identified in the Work Habits Rating Scale, eight of which were included in the 1950 study. Among those not included in the earlier study were seriousness of purpose, industry, and completions of tasks. The results indicated that the scale is both reliable and valid and established a relationship between work habits, study skills, and achievement. Scott (1973), utilizing O'Leary's Work Habit Rating Scale as a means of measuring skill development, attempted to determine the effects of a learning program on work habits and attitudes toward work. The results showed no significant increase in work-habit skill development between the experimental and control group. However, a significantly higher work-habit skill score was obtained from the group with a positive attitude toward work. He concluded "that the level of attitudes toward work is an important factor in work habit skill." (p. 76)

Green (1958) posed the question of whether desirable work habits are *taught* or *caught*. He described the development of personal traits and work habits through clerical office practice and identified seven desirable habits and personal qualities. Among the habits and qualities identified were ability to handle directions, concern for detail and accuracy, and poise and self-assurance. The study also emphasized that employers consider the ability to get along with others as one of the most needed personal qualities. She concluded:

> As teachers of clerical office practice, we must see that opportunities for such social adjustment is provided through the content and nature of our clerical office practice courses and by our teaching. (p. 20)

Neuhaus (1967) in a three-year R and D project to determine the feasibility of employing educable-retarded adults in a competetive work setting, identified three important personal social skills. He found that "the crucial matter in success was not in learning job skills *per se*, but in developing adequate work habits and personal social skills." The skills found to be most important were cooperation, adjustment to co-workers and supervisory personnel, and job interest. (p. 628)

Folsom (1966) assessed a program for the development of work habits for educable mentally retarded youth at the secondary school level. The purpose was to determine whether the use of aids in the development of good work habits would bring about improvement in twelve specified skills. Among those identified were finishing a job, having initiative, and following directions. Folsom, however, reported that the teacher variable played a significant role in influencing the results.

Kishkunas (1967), in a curriculum project for nurses at the Pittsburgh Technical Health Training Institute, identified eleven affective work competencies. Five were listed under the heading of tasks grouped according to areas of knowledge, skills, and attitudes. The remaining six were taken from true cases of nurses aides: cooperation, good judgment, initiative, skill in nursing care (and good emergency judgment), responsibility in observing and reporting, and skill in interpersonal relations.

Lesson nine of the Career Orientation and Exploration program at Current River Area Vocational School (1973) attempted to develop good attitudes toward work that employers are seeking. In an effort to develop these attitudes, one part of the program listed twenty-six terms.

A manual designed to help secretarial students improve office management skills through an analysis of individual leadership abilities was developed at the Communications and Office Skills Training Center in Washington, D.C. (U.S. Civil Service Commission, 1975). Included were the characteristics of a leader and the basic skills necessary for effective leadership. The section dealing with leadership characteristics identified six points, including securing cooperation, motivating people, and developing leadership patience. The section dealing with basic skills for effective leadership identified thirteen such skills. Among these are decisionmaking, responsibility, initiative, creativity, and patience.

Hinman (1967) conducted a predictive validity study of managerial performance in an attempt to identify the creative scientist. The major hypothesis was that there is a relationship between creative performance and personality characteristics. A supervisory rating form was administered to 143 chemical engineering students at the university level. The findings revealed that of the twelve characteristics measured, only three proved significant.

Based on the sources reviewed under work habits and attitudes, a total of thirty-six affective work competencies have been identified. Of these, twenty-seven have been extrapolated from more than one source. (See Table 9.)

Table 8. Identification of Affective Work Habits and Attitudes

Throne, Boles, O'Leary

1. Initiative
2. Perseverance
3. Concentration
4. Responsibility
5. Influence
6. Concern for others (considerate)
7. Self-criticism
8. Emotional stability in work
9. Budgeting time (efficiency)
10. Following directions
11. Seeking advice of research sources (thorough)
12. Organization of materials (orderly)
13. Accuracy

O'Leary

1. Industry
2. Concentration
3. Seeks advice
4. Follows directions
5. Responsibility
6. Budgets time (efficient)
7. Organization of materials (orderly)
8. Research skills
9. Starts and finishes tasks (thorough)
10. Seriousness of purpose
11. Initiative
12. Use of factual materials (accuracy)

Table 8--*(continued)*

13. Self-evaluation
14. Influence on others
15. Emotional reactions

Green

1. Ability to attack problems successfully
2. Ability to handle directions
3. Ability to utilize time and materials efficiently
4. Ability to work independently
5. Wholesome attitude toward work
6. Pleasing personal manner, poise, and self-assurance
7. Concern for detail and accuracy

Neuhaus

1. Cooperation
2. Adjustment to co-workers and supervisory personnel
3. Job interest

Folsom

1. Being on time
2. Using time wisely
3. Finishing a job
4. Having initiative
5. Getting along with others
6. Enjoying work
7. Being neat
8. Following directions
9. Doing satisfactory work
10. Following safety rules
11. Taking care of equipment
12. Working independently

Table 8--*(continued)*

Kishkunas

Tasks

1. Adherence to asepsis (cleanliness)
2. Alertness
3. Accuracy
4. Responsibility
5. Tact

From True Cases of Nurses Aides

1. Cooperative
2. Shows good judgment
3. Shows initiative
4. Shows skill in nursing care and good emergency judgment
5. Responsible in observing and reporting
6. Shows skill in interpersonal relations

Current River

Attitudes from Handout No. 4

1. Tactful
2. Punctual
3. Intelligent
4. Considerate
5. Neat
6. Ingenious
7. Poised
8. Polite
9. Interested
10. Industrious
11. Thorough
12. Persistent
13. Adaptable
14. Orderly
15. Responsible
16. Speedy
17. Loyal

Table 8--*(continued)*

18. Alert
19. Accurate
20. Careful
21. Self-confident
22. Honest
23. Forceful
24. Friendly
25. Cheerful
26. Stable

Skills Training Center

Characteristics of a Leader

1. Understanding people
2. Motivating people
3. Understanding and implementing change
4. Securing cooperation
5. Bringing about satisfaction
6. Necessity for leadership patience

Leadership Skills

1. Manage time
2. Making decisions
3. Improving productivity
4. Influencing actions
5. Goals and objectives
6. Delegating responsibility
7. Necessity for communication skills
8. Guidance and counseling
9. Initiative
10. Creativity
11. Patience
12. Cooperative contributions
13. Influence and effect change

Table 8--*(continued)*

Hinman

1. Creativity
2. Persistence
3. Enthusiasm
4. Independence
5. Fluency
6. Perception
7. Activity
8. Initiative
9. Knowledge
10. Conformity
11. Curiosity

Table 9. Categorized Affective Work Habits and Attitudes

*1. Cooperation
    a. Getting along with others
    b. Securing cooperation
    c. Cooperative contributions
*2. Responsibility
    a. In observing and reporting
    b. Delegating responsibility
*3. Initiative
*4. Capability
    a. Research skills
    b. Ability to attack problems successfully
    c. Necessity for communication skills
    e. Fluency
    f. Knowledge
*5. Follows directions
*6. Perseverance
*7. Concentration
*8. Influence
    a. Motivating people
    b. Bringing about satisfaction
    c. Effecting change
*9. Accuracy
    a. Use of factual materials
    b. Concern for detail

Table 9--*(continued)*

*10. Thoroughness
*11. Independence
*12. Efficiency
*13. Emotional stability
*14. Quality of work
*15. Orderliness
*16. Judgment
*17. Patience
*18. Punctuality
*19. Creativity
*20. Adaptability
*21. Caution
*22. Consideration--tact
*23. Neatness
*24. Alertness
*25. Poise
*26. Intelligence
*27. Interest in job
28. Speed
29. Loyalty
30. Honesty
31. Forcefulness
32. Friendliness
33. Cheerfulness
34. Enthusiasm
35. Activity
36. Curiosity

*Extrapolated concepts from psychological and sociological empirical data

Common Affective Competencies

Two efforts have been made to identify common affective work competencies in vocational education.

Murphy (1972) conducted a one-day brainstorming session to identify commonalities or concepts that cut across all vocational service areas. Ninety-one items were identified by twelve vocational teachers. One hundred experts from the various areas were asked to rate the concepts. Of the ninety-one, eighteen were considered as essential by this group. (pp. 2-5)

Porreco and Stallard (1975) conducted a similar study at the University of Tennessee. Their objectives were as follows: to review and elicit common affective domain competencies from publications representing the five service areas of vocational education; to verify the elicited competencies by submitting the identified competencies to groups of employees, employers, and teachers from the five service areas; and to validate the competencies by submitting them to state-level vocational education directors in order to determine the degree of commonalities. Two separate samples consisting of 191 persons randomly selected from east Tennessee and southwest Virginia, and forty-eight state-level directors were utilized.

The conclusions revealed that the directors agreed that common affective domain competencies exist among the five service areas. Furthermore, they agreed that "common affective domain competencies are concerned with the emotional development of the student and are related to students' interest, attitudes, values, and goals." (p. 1) Conclusions also indicated that affective domain competencies provide a commonality of learning which links the five service areas. Porreco and Stallard observed that "common affective domain competencies of students among vocational areas appear to be as important as cognitive domain and psychomotor domain competencies in vocational-technical education." (p. 1)

A total of 111 statements were identified as related to common affective work competencies. Ninety-five percent of the statements were rated as important by at least eighty percent of the respondents. Twenty-nine statements received a high rating and were listed as "Strongly Recommend Common Affective Domain Competencies." An additional sixty-two statements were listed as "Recommend Common Affective Domain Competencies."

Table 10. Statements of Common Affective Competencies

Murphy

1. Develop sense of responsibility
2. Develop work habits and attitudes necessary for individual maturing and job competence
3. Develop an awareness of skills, knowledge, attitudes and personal qualities necessary in becoming a more employable person
4. Accept responsibility for one's own behavior
5. Pride in work
6. Attitude toward the job

Table 10--*(continued)*

Murphy

7. Ability to follow directions
8. Characteristics necessary for satisfactory relationship with people such as employer, employee, supervisors, customers
9. Maintenance of good physical, mental and emotional health
10. Well-groomed look for work
11. Develop communications skills
12. Ability to plan and carry out plans
13. Factors contributing to job success
14. Understanding of what a customer expects, such as quality of work and materials, honest answers, good service
15. Develop problem-solving abilities
16. Analysis of self in relation to demands of a job
17. What do I have to offer to the job?
18. Job interview technique

Porreco/Stallard

Strongly Recommend

1. Develops some awareness of evaluating interests and abilities with realistic occupational goals
2. Accepts need for accuracy in business, industry, and education
3. Generates work independently without constant supervision
4. Practices care of occupational possessions
5. Follows directions
6. Displays promptness in work
7. Practices good health habits
8. Practices a safety-minded and knowledgeable approach to work at all times
9. Practices care for good personal appearance, character traits, and attitudes
10. Practices safe work habits
11. Possesses a sense of responsibility for providing service
12. Assumes responsibility for the property and safety of the customer
13. Gains personal satisfaction from gainful employment
14. Displays personal desire to get along with others
15. Derives personal satisfaction in accomplishment of quality of work

Table 10--*(continued)*

16. Displays personal satisfaction in accomplishment of quality of work
17. Demonstrates an appreciation for quality of work
18. Accepts the need to verify work in business--accuracy
19. Prefers positive attitudes about work
20. Accepts dignity of work
21. Accepts and practices loyalty, honesty, and trustworthiness
22. Maintains sound professional conduct
23. Holds information confidential concerning work
24. Attempts to utilize effective decision-making processes
25. Utilizes the ability to think through problems
26. Displays realistic desire to work
27. Develops resourcefulness in the work environment
28. Understands the concept of work and the human satisfaction found in work
29. Demonstrates perseverance in accomplishing a job

Recommend

1. Awareness of the economics of the world of work
2. Gains a knowledge of the major occupational fields
3. Acquires an awareness of the role of production
4. Awareness of the characteristics of production
5. Prefers a specific occupational aspiration and career development
6. Accepts need for inspecting and checking of work
7. Provides assistance to people
8. Listens with alertness to customer and co-workers' conversation
9. Appreciates good, efficient manual dexterity
10. Perceives the interdependence of verbal and abstract reasoning
11. Accepts responsibility to set own occupational goals
12. Practices a self-evaluation of interests for occupational opportunities
13. Develops techniques to maintain cleanliness in work area
14. Assumes responsibility for developing an appreciation for and an understanding of processes and products in business and industry
15. Develops the ability to plan and work in groups
16. Volunteers extra work effort to complete rush jobs
17. Voluntarily seeks information for own work
18. Assumes responsibility for acquiring work supplies needed in the production of goods and services

Table 10--*(continued)*

19. Cooperates in requesting, giving, receiving, or discussing information in the work environment
20. Asks pertinent questions related to the product and/or service to be performed
21. Assumes responsibility for giving out or sending out information when needed
22. Contributes to the promotion of product or service
23. Works congenially with other people
24. Derives satisfaction when working with others as a cooperative member of group
25. Enjoys cooperating with others in the work that needs to be performed
26. Plans along with other employees work that needs to be done
27. Voluntarily assists other workers in developing occupational procedure
28. Recognizes social and economic significance of work
29. Accepts the place of management, supervision and decision making in the production of goods and services
30. Assumes responsibility for listening to the planning of work
31. Recognizes quality and/or good design in manufactured products and services
32. Recognizes the importance of the profit incentive in business and industry
33. Recognizes the importance of expenses involved in business and industry
34. Participates actively in organizing constructive work activities
35. Assumes an active role in positive representation of business
36. Attempts to learn about his role in the work environment
37. Demonstrates devotion to a democratic work environment
38. Believes in the free enterprise system
39. Accepts the capitalistic system in the production of goods and services
40. Pursues the development of a career
41. Accepts specialized training for job-entry competency
42. Appraises one's interests and aptitudes when pursuing a vocational occupation
43. Forms judgments as to the rights and responsibilities of employees
44. Forms judgments concerning one's work behavior in relation to other employees.
45. Attempts to identify an order or arrangement of work

Table 10--*(continued)*

46. Develops a plan to utilize resources (money, labor, etc.) efficiently
47. Accepts realistically the importance of background for a particular occupation
48. Accepts own work as part of the work of others who precede and follow
49. Displays systematic planning to determine a course of action
50. Applies scientific principles to work when needed
51. Demonstrates willingness to experience work with a variety of new tools and materials
52. Appraises quality of work with objectivity
53. Judges situations to determine similarities and differences
54. Makes recommendations for corrective measures based on feedback
55. Makes corrections when work needs revision
56. Demonstrates confidence in one's ability to succeed on the job
57. Faces personal and social problems objectively
58. Develops desirable attitudes about personal traits, and social significance of work
59. Develops emotional stability and even temperament
60. Develops the mental stability to work "under pressure" as some jobs may mean meeting a deadline
61. Demonstrates self-direction in work responsibilities
62. Refrains from human exploitation

Table 11. Categorized Affective Work Competencies Common to Vocational Education (Abstracted from Table 10--Murphy and Porreco and Stallard)

*1. Cooperation (11) (M-1)
*2. Emotional stability (9) (M-5)
*3. Quality of work (9) (M-2)
*4. Judgment (8) (M-1)
*5. Responsibility (8) (M-1)
*6. Capability (5) (M-5)
*7. Follows directions (1) (M-1)
*8. Neatness (5) (M-1)
9. Initiative (5)
10. Accuracy (4)
11. Efficiency (4)
12. Awareness (3)
13. Recognition (3)
14. Dependability (3)
15. Reliability (2)
16. Caution
17. Independence
18. Punctuality
19. Health
20. Considerateness
21. Perseverance
22. Resourcefulness
23. Loyalty
24. Honesty
25. Ambition
26. Helpfulness
27. Alertness
28. Appreciation
29. Perception
30. Quantity of work
31. Devotion
32. Dedication

*Extrapolated concepts common to both sources
Bracketed numbers represent the number of times the terms were extracted from statements. If no number follows, the term appeared only one time.
M represents those concepts from Murphy

Evaluation and Measurement of Affective Work Competencies

The main emphasis in vocational and technical education programs has been to provide learning experiences that would facilitate student acquisition of the performance skills and knowledge essential for entry-level employment. Instructional systems were geared for producing people who could deal with words, concepts, mathematical or scientific symbols and the manipulative operations necessary for success in a technological society.

Consequently, teacher-made tests to assess student performance are mainly prepared for cognitive or psychomotor outcomes. Standardized tests which compare student performance with a national norm stress intellectual tasks involving recognition or recall of previously learned knowledge or skill and the reordering or application of such to solve problems posed by the examination (Bloom, Hastings, Nadaus, 1971).

In contrast, the techniques used to evaluate affective characteristics are not nearly so well defined or developed. Because such competencies have not been specifically identified or objectively quantified, appropriate teaching procedures (including evaluation techniques) are essentially nonexistent. Consequently, vocational educators are able only to provide subjective evaluations of work attitudes, work habits, or affective characteristics.

On the other hand, to assess the contributions of individuals to total organizational goals, management has prepared numerous observational evaluation systems and procedures. Rating scales are among the most prevalent observational instruments--probably because they are easy to construct and easy to use (Kerlinger, 1973). Unfortunately, a significant defect of such scales is their proneness to constant or biased error (Guilford, 1954); namely, the supervisor's evaluation of a worker's attitude may be influenced or prejudiced by extraneous factors (the halo effect).

To improve the evaluation of affective characteristics, there is a necessity for reliable, valid, and objective instruments. However, because of the numerous interpretations, it is difficult for people to identify affective concepts in a consistent manner. Hence, the operational specification of these concepts is often neglected.

Various methods used by industry to assess affective work competencies include rating scales, forced-choice methods, rankings, critical-incident techniques, forced-distribution systems, and paired-comparison procedures.

Rating Scales. Rating scales take various forms, but their primary characteristic is the requirement that a check mark be placed at some point along a continuum of value.

Forced-Choice Methods. These scales contain a series of phrases or adjectives in blocks of two or more relating to work performance and/or personal qualifications. Evaluators choose statements from each block which are the most and least characteristic of the worker. Statements appear approximately equal in their degree of favorableness or unfavorableness, thereby lessening the personal bias problem. (Glueck, 1974)

Rankings. Rankings are procedures based on overall performance whereby raters place workers in a specified order. They may rank-order by assigning number one to the most efficient worker, and so on down the line. Or they may alternately choose the highest ranked worker and then the lowest until all are rank ordered.

Critical-Incident Techniques. These techniques require that the evaluator make continuous recordings of specific examples of good and poor work performance, i.e., critical incidents. A major criticism of the technique is that only extreme and unusual cases are reported. (Barrett, 1966) A worker's steady day-to-day performance often is unassessed.

Forced-Distribution System. This evaluation method is based on the assumption that performance in a given group should be normally distributed. The design of the system usually calls for a five-point job performance scale. Evaluators are asked to allocate approximately 10 percent of their employees to the higher end of the scale; 20 percent in the adjacent category; 40 percent in the middle; 20 percent in the category next to the low end; and 10 percent in the lowest category. The group mean of individual performance is used as a standard for assessing employees.

Paired-Comparison. This type of scale requires that evaluators make all possible comparisons among a group. (Lawske, 1964) For instance, the evaluator may be given two names and asked to check which of the two would rate higher. This procedure is continued until all possible comparisons are made.

SUMMARY

Studies of desirable social and psychological employee characteristics revealed a variety of affective work competencies. The investigations conducted by industry focused on the following: identifying the reasons employers discharge or fail to promote employees; defining employee work characteristics; and identifying characteristics employees perceive as necessary for continued successful employment. Additionally, educators investigated these facts: work values and adjustment problems impeding or contributing to the employment of trainees; work habits; work attitudes and worker characteristics that affect such employment; and common affective competencies that cut across all vocational service areas.

Investigations of the reasons employers discharge or fail to promote employees provided a total of fifteen negative affective competencies. An analysis of these factors revealed that seven were common to both industry and education sources. Further analysis revealed that they are the reciprocal of positive affective characteristics employers seek in new employees.

Studies to determine the affective employee characteristics required by employers provided a total of twenty-eight identifiable affective work competencies. Analysis revealed that nine were considered important by more than one source.

A comparison and integration of the fifteen negative (reciprocal) affective competencies with the twenty-eight employer-determined affective work competencies provided a total of twenty-nine identifiable affective work competencies named by industrial employers. (See Table 12, symbol R.)

A number of studies have been utilized to identify the affective work competencies perceived as important by employees. These studies of employees and employee ratings resulted in the identification of twenty-nine categorized affective work competencies. Analysis of these competencies revealed that seventeen were common to more than one investigation.

A comparison and integration of employer and employee affective work competencies provided forty-two competencies identified by industry. (See Table 12.) Analysis of these competencies revealed that sixteen were considered important both by employers (symbol R) and employees (symbol E).

Studies by educators of the social and psychological aspects of work also led to the identification of affective work competencies. Investigations in the area of work values and work adjustment problems which impede or contribute to the successful employment of trainees have resulted in the identification of eighteen categorized affective factors. Analysis of these competencies revealed that thirteen were considered important by more than one source.

Studies and observations attempting to identify work habits and attitudes and worker characteristics that educators should consider in the training of students have aided in the identification of affective work competencies. Analysis provided a total of thirty-six such competencies. Further analysis revealed that twenty-seven competencies were considered important by more than one source.

Two efforts have been directed at identifying common affective work competencies that cut across all vocational education service areas. Based on these sources, a total of thirty-two categorized common affective work competencies have been identified. Analysis revealed that eight were common to both sources.

Educators researching in the specific areas of work values and work adjustment problems, work habits and attitudes and worker characteristics, and common affective competencies identified a total of fifty-four affective work competencies. Analysis revealed that nine competencies were common to all three study groups. Fifteen additional competencies were identified by two of the three groups, while the remaining thirty were identified by a single group.

Table 12. Identification of Affective Work Competencies by Industry*

1. Punctuality (R-E)
2. Honesty (R-E)
3. Dependability (R-E)
4. Helpfulness (R-E)
5. Cooperativeness (R-E)
6. Loyalty and conscientiousness (R-E)
7. Adaptability (R-E)
8. Efficiency (R-E)
9. Responsibility (R-E)
10. Capability (R-E)
11. Emotional stability (R-E)
12. Ambitiousness (R-E)
13. Follows directions (R-E)
14. Work quality (R-E)
15. Dedication (R-E)
16. Initiative (R-E)
17. Reliability (R)
18. Accuracy (R)
19. Perseverance (R)
20. Concentration (R)
21. Judgment (R)
22. Carefulness (R)
23. Courtesy (R)
24. Pleasantness (R)
25. Responsiveness (R)
26. Cheerfulness (R)
27. Enthusiasm (R)
28. Personality (R)
29. Endurance (R)
30. Independence (E)
31. Work quality (E)
32. Intelligence (E)
33. Personal appearance (E)
34. Alertness (E)
35. Devotion (E)
36. Health (E)
37. Recognition (E)
38. Tolerance (E)
39. Shyness (E)
40. Tender-mindedness (E)
41. Overall job performance (E)

Table 12--*(continued)*

42. Leadership potential (E)

*R represents concepts identified by employers
E represents concepts identified by employees
R-E represents concepts identified by both groups

Table 13. Identification of Affective Work Competencies by Educators*

1. Cooperation (V-H-C)
2. Emotional stability (V-H-C)
3. Responsibility (V-H-C)
4. Follows directions (V-H-C)
5. Punctuality (V-H-C)
6. Independence (V-H-C)
7. Neatness (V-H-C)
8. Capability (V-H-C)
9. Initiative (V-H-C)
10. Recognition (V-C)
11. Ambition (V-C)
12. Devotion (V-C)
13. Health (V-C)
14. Creativity (V-H)
15. Perseverance (H-C)
16. Accuracy (H-C)
17. Carefulness (H-C)
18. Considerateness (H-C)
19. Alertness (H-C)
20. Loyalty (H-C)
21. Honesty (H-C)
22. Judgment (H-C)
23. Work quality (H-C)
24. Efficiency (H-C)
25. Achievement (V)
26. Compensation (V)
27. Security (V)
28. Variety (V)
29. Conditions of work (V)
30. Friendliness (H)
31. Speed (H)
32. Concentration (H)
33. Influence (H)
34. Thoroughness (H)
35. Orderliness (H)
36. Patience (H)
37. Adaptablility (H)
38. Poise (H)
39. Intelligence (H)
40. Curiosity (H)
41. Interest (H)
42. Forcefulness (H)
43. Cheerfulness (H)
44. Enthusiasm
45. Activity (H)
46. Work quantity (C)
47. Awareness (C)
48. Dependability (C)
49. Reliability (C)
50. Resourcefulness (C)
51. Helpfulness (C)
52. Appreciation (C)
53. Perception (C)
54. Dedication (C)

*V-concepts identified from work values and work adjustment studies.
H-concepts identified from work habits, work attitudes, and worker characteristics studies.
C-concepts identified from common affective domain competencies studies.

SYNTHESIS OF THE RESEARCH: IDENTIFIED COMPETENCIES

Empirical data revealed that industry and educators are becoming increasingly aware of the need for affective work competencies in addition to cognitive and psychomotor skills. As a result, both have begun to examine the social and psychological aspects of work as they relate to employee competence and performance. Recent investigations in these areas have, therefore, provided a basis for, and a means of, identifying affective work competencies.

Investigations important to industry have led to the identification of forty-two affective work competencies. A comparison and integration of fifteen negative (reciprocal) competencies with twenty-eight positive competencies provided twenty-nine competencies that were considered important by employers (Table 12, symbol R). Additionally, a total of twenty-nine competencies were considered important by employees. Analysis of the combined competencies identified by industry (Table 12) reveals that sixteen were considered important by both employers (symbol R) and employees (symbol E).

Studies by educators identified fifty-four affective work competencies. Analysis of these (Table 12) revealed that nine were commonly identified by three groups of studies: work values and work adjustment problems (symbol V); work habits, work attitudes, and worker characteristics (symbol H); and common affective competencies (symbol C). Fifteen additional competencies were identified by two of the three groups of studies and the remaining thirty were identified by a single group.

Based on the combined investigations conducted by industry and educators, a variety of affective work competencies has been identified. A synthesis of forty-two affective work competencies identified by industry (Table 12) with the fifty-four identified by educators (Table 12) provided a total of sixty-three unique, identifiable affective work competencies (Table 14). An analysis of these competencies revealed that forty-one were identified by industry; fifty-three by educators; only thirty-one were identified by both.

Table 14. Affective Work Competencies Listed by Industry and Educators*

1. Punctuality
2. Cooperativeness
3. Capability
4. Follows directions
5. Responsibility
6. Emotional stability
7. Initiative
8. Honesty
9. Dependability
10. Helpfulness
11. Loyalty
12. Adaptability
13. Efficiency
14. Ambition
15. Quality of work
16. Dedication
17. Reliability
18. Accuracy
19. Perseverance
20. Judgment
21. Concentration
22. Carefulness
23. Cheerfulness
24. Enthusiasm
25. Independence
26. Quantity of work
27. Intelligence
28. Personal appearance
29. Alertness
30. Devotion
31. Recognition
32. Leadership potential
33. Courtesy
34. Pleasantness
35. Responsiveness
36. Personality
37. Endurance
38. Tolerance
39. Shyness
40. Tender-mindedness
41. Overall job performance
42. Health
43. Creative
44. Consideration
45. Speed
46. Influence
47. Orderliness
48. Patience
49. Poise
50. Interest
51. Curiosity
52. Forcefulness
53. Activeness
54. Awareness
55. Resourcefulness
56. Appreciativeness
57. Perceptivity
58. Achievement
59. Compensation
60. Variety
61. Security
62. Working conditions
63. Friendliness

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*1 through 31 were listed by both industry and educators (common), while 32 through 41 were listed only by industry and 42 through 63 were listed only by educators.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

A brief historical review of organizations revealed a shifting attitude toward workers. Early classical management theory emphasized the *economic man*. The assumption was that successful organizations should analyze tasks scientifically, train the worker to fit them, and offer monetary incentives as motivation. The Hawthorne Studies, however, cast doubt on the *economic man* assumptions by suggesting that aspects of the whole human personality were more important than simple monetary incentive in stimulating productivity.

Consequently, industrial psychologists turned to psychology, sociology, and anthropology for an understanding of human factors in the workplace. It appeared that motivation, needs, and goals were closely linked. Needs theories became the area of interest. Murray's list of needs and Maslow's effort to set basic human needs into a hierarchy became the leading theoretical constructs. And, even though respected researchers came to question Maslow's hierarchy, his model has been successfully used by many organizational practitioners.

McClelland, Vroom, and Festinger each contributed to the concepts of motives, expectancy, and dissonance. Their efforts, however, did not focus primarily on work settings. It was Herzberg who, by introducing his Two-Factor theory in 1959, directed organizational attention to the factors that affect worker satisfaction and dissatisfaction. Researchers questioned segments of Herzberg's research. Nevertheless, the basic principles of his theory have been successfully utilized in the workplace. More recently, Porter and Lawler have developed a performance-satisfaction model that has stood the early validation and application tests.

Related directly to the concept of needs is the phenomenon of formal and informal group structures existing within organizations. Psychologists generally agree that the ultimate reason for the development of informal work groups is to provide for the satisfaction of individual needs. Research indicates that the informal work group lends social and psychological assistance to individuals in the workplace. Mayo found that isolation of workers from each other produced dissatisfaction and lowered productivity. Katz suggested that the informal work groups served to hold workers within organizations. Asch concluded that group pressure may control the opinions of individuals within such groups. Mechanic elaborated on the power of workers in the lower ranks of organizations and the pressure that the informal group may exert on new workers to force them to conform to the group norms. It became obvious that an understanding of informal work groups would be extremely valuable for educators and decision makers in organizations.

A base of knowledge about the human behavior both in and out of the work environment is available. Educators and organizations should utilize this pool of information. Management has a responsibility to use it to effect a more motivated, efficient, and stable workforce. Educators, particularly vocational educators, must be aware of this base in order to help students understand the expectations of both formal and informal organizations and the reasons for their own behavior under varying circumstances in the workplace.

Both organizational and educational researchers have made an effort to understand behavior by focusing on the causes. There is, however, another significant aspect of behavior: the evaluation component. Evaluation of behavior is based on approval or disapproval. Approved behavior in the workplace may be defined as positive affective work competencies, which includes the components of work attitudes, values, and habits.

Recent empirical evidence revealed that practitioners are becoming increasingly aware of the need for defining affective work competencies. As a result, both organizations and educators have begun to examine the effects of the social and psychological work environment on employee competence. The studies of the sociopsychological aspects of work have provided a basis for, and a means of, identifying these competencies.

Investigations conducted by industry have been aimed at identifying the following: the affective reasons employers discharge or fail to promote employees, the affective employee characteristics employers consider important, and the affective characteristics employees consider necessary for continued successful employment. These investigations have led to the identification of forty-two affective work competencies considered important by industry (sixteen of which were listed by both employers and employees).

Similarly, studies conducted by educators have been aimed at identifying affective work values and work adjustment problems; affective work habits, work attitudes, and worker characteristics; and common affective competencies that cut across all vocational service areas. These studies provided a total of fifty-four competencies considered important by educators (nine of which were named in all three groups of studies; fifteen additional competencies were considered important by two of the three groups).

For vocational and technical education programs, the primary emphasis has been to facilitate the acquisition of cognitive and psychomotor competencies. Evaluation instruments were developed to measure student progress; aptitude tests, intelligence tests, and achievement tests have been prepared to assess knowledge and performance skills.

In contrast, techniques used to evaluate affective characteristics are not nearly so well developed. Since affective work competencies have not been specifically identified or objectively quantified, appropriate teaching procedures and instructional strategies (including evaluation techniques) are essentially nonexistent. Consequently, educators are able to provide only subjective evaluations of attitudes, work habits, and affective characteristics.

To assess the overall effectiveness of individuals, management has prepared numerous measurement procedures. Unfortunately, the subjective nature of the evaluation instruments introduces the significant defect of employers' proneness to constant or biased error. In other words, the supervisor's evaluation of a worker's attitude might be influenced by extraneous factors.

Some of the methods and instruments used by organizations to assess affective work competency includes rating scales, forced-choice methods, rankings, critical-incident techniques, forced-distribution systems and the paired-comparison procedures. Rating scales are perhaps the most prevalent of the observational measuring instruments.

CONCLUSIONS

There is clearly a lack of continuity between educational institutions and employing organizations. Attempts to coordinate the transfer and progression of persons from school to work have been localized and insufficient. Consequently, some of the affective work competencies identified by educators have been inconsistent with what industry wanted or needed. In order to improve continuity there needs to be a greater degree of cooperation and communication between employing organizations and educational institutions to identify critical affective work competencies required for effective job performance.

The inability of researchers to identify and objectively measure affective competencies has perpetuated confusion about the affective work domain and its meaning. To identify accurately and quantify such competencies, reliable, valid and objective measuring instruments need to be developed and used in both industry and vocational education.

Attempts at identifying desirable affective competencies have been narrow and restricted to only a few occupations. Efforts to integrate affective objectives into instructional programs consequently have been futile. In order to determine affective instructional segments common to the vocational service areas, a comprehensive investigation of many occupations---with clustering and factor analysis---needs to be done. The process, hopefully, will reveal the common affective work competencies for occupations and occupational clusters that can be used by both industry and vocational education.

Efforts to prepare students for employment with sufficient work competencies have been limited almost exclusively to the psychomotor and cognitive domains. The majority of educators do not know what affective work competencies to teach. To facilitate the student's acquisition of affective work competencies and reduce ambiguity, it is necessary to know which competencies are desirable and what degree of each is necessary. That is, affective work competencies need to be identified and quantified for each specific occupation or cluster.

Studies on affective worker competencies have been concerned primarily with currently employed or discharged workers; recommendations have focused on modifying or supplementing the existing work environment. Most of these studies have concentrated only on matching already-employed workers' affective work competencies with the environment in which they are working. Few investigations have been conducted on preparing people with affective work competencies necessary for occupational success. Concerted R and D efforts, therefore, need to be focused on developing the affective work competencies of elementary, high school, and postsecondary youth who will become members of the work force.

Even if educators knew which affective work competencies were important or necessary for successful employment, there is still a great deal of information needed regarding appropriate and effective techniques. Theories abound, but the thoughts and philosophy about teaching affective work competencies are inconclusive. In order to provide effective work competency instruction, teaching techniques and strategies need to be prepared, utilized, and evaluated.

Educators should assume the responsibility to help students acquire work values, habits, and attitudes necessary for occupational success. To accomplish this, teachers must become familiar with the strategies, methods, and materials relating to affective work competencies. Teacher-education programs should develop materials, continually disseminate them, and provide inservice workshops for practicing vocational education personnel.

There has been an insufficient consolidation of efforts and resources for preparing today's vocational education graduates with the appropriate work attitudes, values, and habits. For vocational educators to prepare people for successful employment, an increased R and D effort in affective work competencies needs to be made.

RECOMMENDATIONS

(1) For reducing the *shock* of transition from school to work and to make this transition as smooth as possible for students in vocational and technical education programs, employing organizations and educational institutions must develop greater cooperation and communication.

(2) For researchers to identify and objectively measure affective work competencies, they need to develop reliable, valid, and objective measuring instruments. (An outline for the preparation of an affective work competencies inventory is included at the end of this paper.)

(3) To identify the affective work competencies essential in each vocational service area, a comprehensive investigation of many occupations should be made. (This would include administering developed competencies inventories, analyzing data, and accumulating a base of empirical data.)

(4) Affective work competencies common among occupations should be identified. The common competencies would provide the framework of an integrated content for instruction for all vocational service areas.

(5) In an attempt to reduce employee-employer conflicts and job dissatisfaction, concerted R and D efforts should be focused on helping youth develop minimum mastery levels of affective work competencies. Studies must be made to establish what teaching strategies are most appropriate for elementary, high school and postsecondary students.

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(6) To facilitate student acquisition of affective work competencies, instructional materials and lesson procedures need to be developed, utilized, and evaluated.

(7) To acquaint vocational and technical education teachers with the educational strategies, teaching methods, and instructional materials that can help them present the affective work competencies more effectively, appropriate teacher education programs and inservice workshops must be provided.

(8) To effectively prepare people for an environment where work values, habits and attitudes are the criteria for job survival, a significantly increased effort must be made on R and D relating to affective work competencies.

PREPARATION OF AN AFFECTIVE WORK COMPETENCIES INVENTORY

1. *Review and Consolidate.* Develop a list of the desirable affective work characteristics that have been identified.

2. *Prepare AWC Indicators.* List a broad range of behaviors that will be high probability indicators for each affective worker characteristic. Narrow them down to those behaviors which can be observed most clearly and objectively.

3. *Validate.* Review and edit procedures to eliminate redundancy. With initial processing of the affective work competencies, a draft instrument should be designed to validate the indicators and to identify any new competencies that might have been overlooked. A panel of resource persons who specialize in instrument design, evaluation, labor relations, and personnel management should be consulted to insure the valid collection of data.

4. *Standardize.* Administer the inventory to representative samples of workers within each specific vocational group or occupational cluster.

5. *Analyze.* Analyze resulting data to determine occupational indices of competency magnitude for each affective work competency.

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